

**colorado school of  
public health**

UNIVERSITY OF COLORADO  
COLORADO STATE UNIVERSITY  
UNIVERSITY OF NORTHERN COLORADO



**Self-Study Report Prepared for the  
Council on Education for Public Health**  
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ColoradoSPH Dean's Communiques April – July 2015

Website Invitations for Feedback to CEPH

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Colorado State University

University of Colorado Denver

University of Northern Colorado

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CSU-UNC Organizational Chart

Denver-Anschutz Governance Organizational Chart

Inter-Institutional Organizational Chart

Regents Governance Organizational Chart

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Colorado State University Faculty–Administrative Professional Manual

University of Colorado Faculty Handbook

University of Colorado Officer and University Staff Handbook

State of Colorado Classified Employee Handbook

University of Northern Colorado Faculty–Staff Policy Manual

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ColoradoSPH Bylaws

Policies and Procedures

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CSU Concentrations

CU Concentrations

UNC Concentrations

MS Curriculum

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MPH Practicum Proposal

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Occupational Medicine Residency Practicum Rotation Sites

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Capstone Abstracts Summer 2014  
Capstone Assignments Grading Rubric  
Capstone Baseline Competency Self-Assessment  
Capstone Experience  
Capstone Follow-up Competency Self-Assessment  
Capstone Oral Grading Rubric  
Capstone Preceptor Survey  
Capstone Project Proposal  
CSU Capstone Abstracts Fall 2014  
CSU Capstone Abstracts Spring 2015  
CSU Capstone Abstracts Summer 2015  
CSU Capstone Packet  
UNC Capstone Project Proposal

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Doctor of Veterinary Medicine-MPH

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Master of Public Affairs-MPH

Master of Social Work-MPH

Master of Urban and Regional Planning

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Doctor of Veterinary Medicine-MPH Accepted Course Syllabi

Doctor of Medicine-MPH Accepted Course Syllabi

Master of Public Affairs-MPH Accepted Course Syllabi

Master of Social Work (CSU)-MPH Accepted Course Syllabi

Master of Social Work (DU)-MPH Accepted Course Syllabi

Master of Urban and Regional Planning-MPH Accepted Course Syllabi



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Graduate Student Handbook

MPH Handbook

MS/PhD Biostatistics Handbook

MS/PhD Epidemiology Handbook

PhD Health Services Research Handbook

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Community & Behavioral Health (CBHS) Course Syllabi  
Colorado State University (CSU) Course Syllabi  
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## LIST OF ABBREVIATIONS USED

APE- Animals, People, and the Environment (MPH Concentration)

BIOS- Biostatistics (department or degree focus area/concentration)

CBH- Community and Behavioral Health (department or degree focus area/concentration)

CHE- Community Health Education (MPH concentration)

CSU- Colorado State University

CU- University of Colorado

EOH- Environmental and Occupational Health (department or degree focus area/concentration)

EPID- Epidemiology (department or degree focus area/concentration)

ETS- Educational Testing Service

GCBH- Global Health plus Community and Behavioral Health (MPH concentration)

GEOH- Global Health plus Environmental and Occupational Health (MPH concentration)

GEPI- Global Health plus Epidemiology (MPH concentration)

GHHD- Global Health and Health Disparities (MPH concentration)

GHSM- Global Health plus Health Systems, Management and Policy

GMCH- Global Health plus Maternal and Child Health (MPH concentration)

HCM- Health Communication (MPH concentration)

HSM- Health Systems Management (MPH concentration)

HSMP- Health Systems, Management and Policy (department or degree focus area/concentration)

HSR- Health Services Research (also HSVR) (degree focus area/concentration)

IP - Indicates that data collection is still in progress

LPH- Leadership and Public Health Practice (MPH concentration)

MCH- Maternal and Child Health (MPH concentration)

MOA- Memorandum of Agreement

MOU- Memorandum of Understanding

n/a – Indicates not applicable

PAHL- Physical Activity and Healthy Lifestyles (MPH concentration)

PHN- Public Health Nutrition (MPH concentration)

Unav. – Indicates that data is unavailable

UNC- University of Northern Colorado



# The School of Public Health

# 1.0



Located in Aurora, Colorado, just east of downtown Denver, the University of Colorado Anschutz Medical Campus is home to the School's administrative offices and the University of Colorado's professional health schools, programs, and clinics.





# 1.0 THE SCHOOL OF PUBLIC HEALTH

## 1.1 MISSION

The mission of the Colorado School of Public Health (ColoradoSPH) remains unchanged from that adopted at the School's inception in 2008. In 2013, the mission and vision were reviewed as part of a comprehensive 5-year strategic planning process. Although the mission was unchanged, the vision statement was revised and approved in November 2014 to reflect an institution that would be significantly transformed by its focus on five strategic priorities that were identified in the planning process. At that time, a values statement was added. The strategic plan is continuously being updated to reflect progress on implementation and changes within the School. The plan with recent status updates is available in Resource File 1.1.

### 1.1.A CLEAR AND CONCISE MISSION STATEMENT FOR THE SCHOOL AS A WHOLE

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#### MISSION

The mission of the Colorado School of Public Health is to promote the physical, mental, social, and environmental health of people and communities in the Rocky Mountain region and globally. This mission will be accomplished through collaborations in education, population-based research, and community service that bring together institutions, agencies, and diverse populations.

The mission can be found on the ColoradoSPH website at:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/About/Pages/identity.aspx>

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#### VISION

The Colorado School of Public Health will become one of the nation's premier institutions for public health education and research, with top recognition for its work in selected areas and an outstanding reputation for delivering education, training, and service programs that are based in science, proven in practice, and adapted through creativity to meet pressing population health needs.

During a recent leadership retreat, the following internal vision was proposed and is under review: ColoradoSPH will nurture an internal environment and culture where the School's public health researchers, teachers, service providers, staff and students thrive in pursuit of the School's vision and mission. "Thriving" was further defined as ColoradoSPH's people are energized, producing great outcomes, and are enjoying being part of a successful organization.

Six defining strengths were identified as the areas where our collective expertise at ColoradoSPH can have the greatest impact on population health improvement. These strengths are: American Indian and Alaska Native

health, cancer prevention and control, diabetes and obesity prevention, global health, maternal and child health, and worker health and wellness.

The mission of ColoradoSPH is congruent with the missions of the three partnering public universities (the University of Colorado Anschutz Medical Campus, Colorado State University, and the University of Northern Colorado) and supports the goals related to diversity at each campus. The mission and goals of ColoradoSPH also support the principal functions of public health and the 10 essential public health services, as articulated in 1994 by the Public Health Functions Steering Committee, an expert panel appointed by leading national public health organizations (<http://www.cdc.gov/nphsp/essentialServices.html>).

These functions include assessment, policy development, and assurance to:

- Prevent epidemics and the spread of disease
- Protect against environmental hazards
- Prevent injuries
- Promote and encourage healthy behaviors and environmental sustainability
- Respond to disasters and assist communities in recovery
- Assure the quality and accessibility of health services

### **1.1.B STATEMENT OF VALUES THAT GUIDE THE SCHOOL**

During the 2013-15 process of defining strengths and developing strategic priorities, as well as affirming the Mission and Vision of the School, the following values were articulated and considered to be fundamental to these discussions:

- Diversity of ideas and individuals
- Health as a basic human right, including equity in access to health resources
- Equity, reciprocity, and collaboration in health and health access, regardless of geography
- Empowerment of individuals and communities in the pursuit of health
- Creating healthy, safe, and productive environments
- Focus on action that advocates for and improves public health
- Transforming the science and study of health through continuous development of new methods
- Investment in the training and development of our faculty and staff
- Highest standards of quality in public health education
- Culture of mutual support and accountability among faculty, staff, and students

As we go about the work that is imbued with these values, we strive to embody the following in our processes:

- Collaboration and mutual accountability
- Collegiality and respect
- Honesty and integrity
- Empathy and compassion
- Appreciation for differences and focus on strengths
- Intellectual challenge and innovation
- Commitment and perseverance

### **1.1.C ONE OR MORE GOAL STATEMENTS FOR EACH MAJOR FUNCTION THROUGH WHICH THE SCHOOL INTENDS TO ATTAIN ITS MISSION, INCLUDING AT A MINIMUM, INSTRUCTION, RESEARCH, AND SERVICE**

The School's strategic plan is organized around five strategic priorities. Each priority has a range of goals, strategies for achieving those goals, and action steps, along with target dates for achievement and individuals/positions identified as responsible for implementation. The 2013 Strategic Plan is provided in Resource File 1.1 and an abbreviated version can be found at the following link:

[http://www.ucdenver.edu/academics/colleges/PublicHealth/About/Documents/ColoradoSPH\\_StrategicPlan\\_2013.pdf](http://www.ucdenver.edu/academics/colleges/PublicHealth/About/Documents/ColoradoSPH_StrategicPlan_2013.pdf)

Below are listed the five strategic priorities, the goals within those priorities, and the strategies for achieving the goals along with brief indicators of current status in parentheses. Action steps and target dates are in the strategic plan.

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#### **STRATEGIC PRIORITY #1: ENHANCE AND FACILITATE STUDENT SUCCESS IN PUBLIC HEALTH LEARNING.**

Deliver excellent public health learning experiences that draw on the talents of a multi-campus school and reflect the School's core values related to health equity, collaborative effort, and evidence-based practice.

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##### **GOAL 1: RECRUIT AND RETAIN STUDENTS OF EXCELLENCE.**

- Improve and standardize academic and capstone advising (ongoing).
- Enhance enrollment management services (recruitment and admissions) (ongoing).
- Identify funding opportunities for student support in all programs and on all campuses, including identification of paid positions on research grants, training grants, and scholarships (ongoing).
- Enhance career development and employer relations programs (ongoing).
- Intentionally create a vibrant and interactive student experience (ongoing).
- Build an inclusive and diverse ColoradoSPH that is reflective of the communities that public health serves (ongoing).
- Establish a co-curricular program (for no academic credit) to develop specific skill sets in students (in planning).

---

##### **GOAL 2: ENSURE THE QUALITY OF COLORADOSPH CURRICULUM IN KEEPING WITH CEPH ACCREDITATION STANDARDS AND COLORADOSPH VALUES.**

- Enhance practice-based learning opportunities and experiences (ongoing).
- Carry out systematic and regular review of the curriculum aimed at evaluating the mix, sequencing, and quality of courses within and across programs and campuses (ongoing).
- Expand the curriculum of the MPH and DrPH degrees to include requiring an understanding of the rationale, design, management, and evaluation of the current major public health programs in Colorado (done for MPH; ongoing for DrPH).
- Enhance evaluation of student competency development within the curriculum (ongoing).
- Critically review and continue to improve the quality of teaching across the ColoradoSPH (ongoing).
- Institute a program of faculty exchanges across campuses (in planning).

---

GOAL 3: EXPAND CURRICULUM OFFERINGS IN DIRECTIONS THAT REFLECT CURRENT AND EMERGING STRENGTHS OF COLORADOSPH AND ITS VALUES.

- Review protocol for establishment of new degree or certificate programs (done).
- Evaluate feasibility, and develop a business plan for an online/hybrid MPH program (done).

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**STRATEGIC PRIORITY #2: CONDUCT RESEARCH AND CREATIVE ACTIVITIES FOR MAXIMUM IMPACT ON POPULATION HEALTH.**

Leverage current strengths and facilitate collaboration for new directions and increased faculty and student activity.

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GOAL 1: PROMOTE ACCELERATED DISCOVERY AND APPLICATION OF KNOWLEDGE BY LEVERAGING CURRENT STRENGTHS AND INCREASING SUPPORT FOR IMPORTANT INTERDISCIPLINARY AREAS.

- Establish a process to identify and prioritize new strategic areas and evaluate the need for new centers and programs (in planning).
- Develop and support collaborative networks to foster interdisciplinary research across ColoradoSPH departments and ColoradoSPH partner institutions/schools (ongoing).
- Strategically recruit faculty in programmatic and methodological areas of public health relevance (ongoing).
- Increase expectations for and support (through pilot grants) of faculty participation in collaborative research activities (promoting university opportunities, planning School opportunities).

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GOAL 2: INCREASE RESEARCH EFFICIENCY AND PRODUCTIVITY BY LEVERAGING UNIVERSITY RESOURCES AND IMPROVING SCHOOL-WIDE SERVICES FOR ADMINISTRATION AND SUPPORT OF RESEARCH, INCLUDING COLLABORATIVE GRANTS ACROSS PARTNER INSTITUTIONS.

- Recruit an associate dean for research (done).
- Significantly improve research infrastructure, including clerical, pre- and post-award administration, project coordination, and human subject research support (ongoing).
- Establish a school-wide research committee (done).
- Enhance the administrative feasibility of inter-institution collaboration (in planning).
- Develop, maintain, and further enhance an integrated research computing infrastructure to support research endeavors (transitioned to University of Colorado responsibility as part of the implementation of the university strategic plan for research computing support).

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GOAL 3: INCREASED RESEARCH OPPORTUNITIES AND MENTORING FOR JUNIOR FACULTY.

- Develop and implement a school-wide grant peer-review program for junior faculty (in planning, some departmental efforts in place).
- Develop and implement a school-wide pilot program for mentored research (in planning).
- Implement school-wide and department-specific “Research in Progress” seminar series (department seminars in place).

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#### GOAL 4: INCREASE STUDENT PARTICIPATION IN RESEARCH AND CREATIVE ACTIVITIES.

- Increase expectations for and support of student participation in scholarly activities (ongoing).
- Connect students to research projects and other creative activities, including practice-based research and public health projects (ongoing).
- Obtain or substantively participate in pre-and post-doctoral training grants (ongoing).
- Offer school-wide and department-specific seminars (e.g., research discussion groups, scientific writing, etc.) (department seminars in place).
- Implement a summer undergraduate research program for under-represented students (in planning).

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### **STRATEGIC PRIORITY #3: ENSURE THE FINANCIAL FUTURE OF COLORADOSPH IN ORDER TO SUSTAIN AND SELECTIVELY EXPAND PROGRAMS AND SERVICES.**

Focus on current enrollment and research revenue streams, and cultivate new opportunities.

---

#### GOAL 1: ASSESS ACADEMIC COST EFFICIENCY.

- Clarify cost of instruction at the school, department and course levels (done).
- Develop department and program models for enrollment growth, based on student and faculty capacity and department/program assumptions (done).
- Align faculty roles and rewards in each track (i.e., tenure track, clinical teaching track, research track, etc.) between the workload model and intended roles, actual roles (ongoing).
- Identify opportunities to leverage university resources to provide administrative and other support functions for ColoradoSPH (ongoing).

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#### GOAL 2: EVALUATE THE COST EFFICIENCY OF THE SCHOOL AND ACADEMIC PARTNERSHIPS.

- Evaluate the cost-efficiency and economic incentives of the School's financial planning and spending models (deferred).
- Establish approach to assessing cost-effectiveness of new partner institutions (in planning).
- Assess the current funding structure with existing partners to determine sustainability (ongoing).
- Evaluate cost-effectiveness of new and existing dual degree programs (ongoing).

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#### GOAL 3: DEVELOP REVENUE STREAMS BASED ON NEW ACADEMIC PROGRAMMING.

- Evaluate feasibility and develop a business plan for increased continuing education, certificate programs, and summer institutes (in planning).

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#### GOAL 4: POSITION THE SCHOOL TO ADAPT TO CHANGES IN FUNDING SOURCES FOR RESEARCH.

- Maintain and strengthen partnerships with community-based organizations and health care partners to secure and increase collaborative research funding (ongoing).
- Develop the infrastructure to seek receipt of private research funding (industry, business, foundations) (ongoing).

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#### GOAL 5: LAUNCH A CAMPAIGN FOR COLORADOSPH.

- Prepare a case statement for the School (ongoing).

- Develop a prospective donor base and donor cultivation program (ongoing).
- Formalize a ColoradoSPH campaign through the Dean’s Advisory Board and a Campaign Council (in planning).
- Model the way by carrying out an internal campaign for ColoradoSPH (ongoing).

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#### GOAL 6: CREATE A SUSTAINABLE ALUMNI ENGAGEMENT AND DEVELOPMENT PROGRAM.

- Develop an alumni communication plan based on updated contact information and data (ongoing).
- Formalize school-wide alumni volunteer engagement program (ongoing).
- Develop alumni giving program focused on participation and pipeline development (ongoing).

---

#### GOAL 7: DEVELOP REVENUE-PRODUCING SERVICE UNITS WITHIN COLORADOSPH.

- Extend the Development and Informatics Service Center (DISC) to support both ColoradoSPH and community technology needs (transitioned to University of Colorado responsibility as part of the implementation of the university strategic plan for research computing support).
- Evaluate feasibility and develop a business plan for an Evaluation Services Center (in planning).

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### STRATEGIC PRIORITY #4: STRENGTHEN THE SCHOOL’S IDENTITY.

Strengthen the three-partner enterprise in academically meaningful and highly visible ways while maintaining strong, primary links to our three campuses and their resources and facilities.

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#### GOAL 1: HARMONIZE INTER-INSTITUTIONAL GOVERNANCE, PROCESSES, SYSTEMS AND COMMUNICATIONS.

- Increase communication with university administrators and School dean/directors (ongoing).
- Evaluate collaborative governance of ColoradoSPH to ensure that all partners participate in decision-making (done).
- Evaluate processes/operations across campuses to ensure efficiency and quality for all partners (ongoing).

---

#### GOAL 2: CREATE A CONSISTENT IDENTITY/BRAND THAT VALUES THE UNIQUE STRENGTHS OF THE SCHOOL AND ITS CAMPUSES AND THAT IS KNOWN AND USED BY ALL PARTNERS.

- Identify the unique strengths that are valued by faculty, students, and funders (ongoing).
- Articulate the School’s identity and the strengths of our three collaborative campuses (ongoing).
- Develop and share a marketing and communication plan to promote the School’s identity (ongoing).
- Increase ColoradoSPH visibility on UNC, CSU, and CU Anschutz campuses (ongoing).

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#### GOAL 3: ENHANCE AND FACILITATE COLLABORATIVE, COMPLEMENTARY CROSS-CAMPUS COURSES AND EDUCATION PROGRAMS THAT ENGAGE FACULTY AND STUDENTS ACROSS CAMPUSES.

- Create a dedicated infrastructure at CSU for faculty in the public health program (done).

- Develop and implement complementary school, campus and program level faculty and student engagement plans (ongoing for faculty, done for students).
- Identify and promote areas of specialization that encompass courses on all campuses and introduce students to faculty and projects across campuses (e.g., preparedness, chronic disease prevention, high-impact biostatistics and informatics) (in planning).
- Identify and promote collaborative cross-campus education programs (e.g., global health, food safety, worksite safety) (in planning).
- Create/enhance communication resources to facilitate the partnership (ongoing).

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## **STRATEGIC PRIORITY #5: BUILD COMMUNITY BONDS THROUGH TRAINING AND SERVICE.**

Meet the needs of both the professional public health community and the populations we serve through training and outreach activities that impact population health needs.

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GOAL 1: INCREASE THE REACH AND EFFECTIVENESS OF TRAINING AND TECHNICAL ASSISTANCE OFFERED BY COLORADOSPH TO THE PUBLIC HEALTH WORKFORCE IN COLORADO.

- Implement expanded training and technical assistance statewide (ongoing).

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GOAL 2: FACILITATE PROFESSIONAL EXCHANGES IN TEACHING, RESEARCH, AND PRACTICE THROUGH RELATIONSHIPS WITH KEY ORGANIZATIONS IN COLORADO AND BEYOND THAT HAVE MISSIONS TO IMPROVE HEALTH OF THE PUBLIC.

- Evaluate the potential costs, needs, and benefits of formal relationships with new, non-academic partners for ColoradoSPH (in planning).
- Develop partnerships tailored to the needs of other organizations focused on teaching, research, and/or practice (ongoing).

### **1.1.D SET OF MEASURABLE OBJECTIVES WITH QUANTIFIABLE INDICATORS RELATED TO EACH GOAL STATEMENT AS PROVIDED IN CRITERION 1.1.C**

The Strategic Plan for ColoradoSPH described above is primarily focused on process; it emphasizes specific efforts to accomplish various goals, rather than measurable outcomes of those efforts. Objectives for each strategic priority and their quantifiable indicators are shown in Table 1.1.d. The set of indicators includes some that were identified in preparation for the 2010 School accreditation as well as some developed to address strategic priorities identified in the 2013 process. The objectives listed below for each strategic priority can be mapped back to the strategic plan.



TABLE 1.1.D MEASURABLE OBJECTIVES AND CORRESPONDING INDICATORS

STRATEGIC PLAN ITEM	GOAL/OBJECTIVE	INDICATORS
<b>Goal 1: Enhance and facilitate student success in public health learning opportunities - Deliver excellent public health learning experiences that draw on the talents of a multi-campus school and reflect the School's core values related to health equity, collaborative effort, and evidence bases for practice</b>		
Priority: 1 Goal: 1	1.1 Recruit and retain students of excellence	<ul style="list-style-type: none"> <li>• Average undergraduate GPA's of newly enrolled students, by degree</li> <li>• Mean verbal and quantitative GRE scores (percentiles) of newly enrolled students, by degree</li> <li>• Percent of incoming MPH students who have public health work experience</li> <li>• Student enrollment in MPH programs, by concentration and focus area</li> <li>• Student enrollment in DrPH programs</li> <li>• Student enrollment in MS/PhD programs</li> <li>• Number of students with a global health add-on</li> <li>• Student enrollment in dual degree programs, by program</li> <li>• Student enrollment in certificate programs</li> <li>• Graduation rate of MPH/MS students (within 5 years)</li> <li>• Graduation rate of DrPH/PhD students (within 7 years)</li> <li>• Graduation rate of dual degree students (both degrees within 5 years of entering the MPH program)</li> <li>• Median time to graduation, by degree</li> </ul>
Priority:1 Goal: 1 Strategy: 3	1.2 Identify funding opportunities for student support in all programs and all campuses, including identification of paid positions on research grants, training grants, and scholarships	<ul style="list-style-type: none"> <li>• Annual amount of scholarships distributed</li> <li>• Percent of students participating in grant-funded research</li> <li>• Number of training grants received</li> </ul>
Priority: 1 Goal: 1 Strategy: 2	1.3 Provide high quality educational programs in public health	<ul style="list-style-type: none"> <li>• Ratio of student FTE to faculty FTE across all programs</li> <li>• Proportion of faculty participating in faculty development activities related to teaching</li> <li>• Mean overall course and teaching evaluation results of courses, by department</li> <li>• Ratings of recommending the program to others</li> <li>• Satisfaction with advising/mentoring – Masters</li> <li>• Satisfaction with advising/mentoring – Doctoral</li> <li>• Ratings of program evaluation items</li> <li>• Number of co-curricular activities offered, such as cultural competency, writing, library search skills, public speaking, ethical conduct</li> <li>• Percent of courses that include health equity content</li> </ul>
Priority: 1 Goal: 3	1.4 Provide online and remote learning opportunities to reach working professionals	<ul style="list-style-type: none"> <li>• Number of courses fully online</li> <li>• Number of programs available fully online</li> <li>• Percent of core MPH courses offered online</li> <li>• Course evaluations of online vs. in-person courses</li> </ul>

STRATEGIC PLAN ITEM	GOAL/OBJECTIVE	INDICATORS
Priority: 1 Goal: 2	1.5 Graduate professionals who are competent and prepared to work in public health or other health-related areas or are prepared to pursue further educational opportunities	<ul style="list-style-type: none"> <li>• Job placement/continued education rates of graduates within 12 months of graduation</li> <li>• Graduates' self-assessment of competency attainment</li> <li>• Preceptors' satisfaction with quality of students' practica work</li> <li>• Pass rates for certification exams (CHES and CPH)</li> <li>• Percent of practica that are done in community settings</li> <li>• Percent of capstone projects that are done in community settings</li> </ul>
Priority: 2 Goal:4	1.6 Promote student involvement in education, research, and service activities with faculty and other professionals	<ul style="list-style-type: none"> <li>• Percent of funded projects that involve students</li> <li>• Percent of publications of faculty in the ColoradoSPH that include students as coauthors</li> <li>• Percent of students participating in service activities while in training</li> </ul>
Priority:1 Goal: 1 Strategy: 4	1.7 Enhance career development and employer relations programs	<ul style="list-style-type: none"> <li>• Student evaluations of career placement and counseling</li> <li>• Number of career services events</li> <li>• Number of career advising sessions</li> </ul>
Priority: 1 Goal: 1 Strategy: 4	1.8 Intentionally create a vibrant and interactive student experience	<ul style="list-style-type: none"> <li>• Number of social events for students</li> <li>• Number of ColoradoSPH students actively involved in Student Council</li> <li>• Number of school-wide alumni events</li> </ul>
Priority:1 Goal:1 Strategy: 6	1.9 Build an inclusive and diverse ColoradoSPH that is reflective of the communities that public health serves	<ul style="list-style-type: none"> <li>• Percent of applicants from underserved backgrounds</li> <li>• Percent of newly enrolled students from underserved backgrounds</li> <li>• Ratings on health equity in coursework and inclusiveness in culture items</li> <li>• Graduation rates of underserved students (racial/ethnic) in MPH/MS program (within 5 years)</li> <li>• Graduation rates of underserved students (racial/ethnic) in DrPH/PhD programs (within 7 years)</li> <li>• Job placement/continued education rates of underserved graduates (racial/ethnic) within 12 months of graduation</li> <li>• Scholarships awarded to students from underserved backgrounds</li> </ul>
<b>Goal 2: Conduct research and creative activities for maximum impact on population health - Leverage current strengths and facilitate collaboration for new directions and increased faculty and student activity</b>		
Priority: 2 Goal: 1	2.1 Advance knowledge through the dissemination of publications and presentations	<ul style="list-style-type: none"> <li>• Total number of publications</li> <li>• Number of publications per capita for faculty</li> <li>• Percent of publications that are collaborative</li> </ul>
Priority: 3 Goal:4	2.2 Maintain a large portfolio of sponsored grant awards across the ColoradoSPH	<ul style="list-style-type: none"> <li>• Total dollar value (direct costs) of all awards to ColoradoSPH faculty</li> <li>• Types of awards</li> </ul>

STRATEGIC PLAN ITEM	GOAL/OBJECTIVE	INDICATORS
Priority: 2 Goal: 2	2.3 Increase research efficiency and productivity by leveraging university resources and improving school-wide services for administration and support of research, including collaborative grants across partner institutions	<ul style="list-style-type: none"> <li>Number of awards that include collaboration across partner institutions (CU Anschutz, CSU, UNC)</li> <li>Institutional expenditures per faculty FTE for research support (only including non-center affiliated faculty)</li> <li>Percent of ICR returned to departments (annual)</li> <li>Percent of ICR returned to centers (annual)</li> </ul>
Priority: 2 Goal: 3	2.4 Increase research opportunities and mentoring for junior faculty	<ul style="list-style-type: none"> <li>Number of faculty development programs to enhance research success</li> <li>Percent of assistant professors and instructors who have an identified mentor (CU only)</li> </ul>
<b>Goal 3: Ensure the financial future of the ColoradoSPH in order to sustain and selectively expand programs and services- Focus on current enrollment and research revenue streams and cultivate new opportunities</b>		
Priority: 3	3.1 Maintain the financial resources to achieve the School's mission and vision	<ul style="list-style-type: none"> <li>State funding</li> <li>Tuition revenue</li> <li>Grant and contract funding</li> <li>Fundraising</li> </ul>
Priority: 2 Goal: 2 Strategy: 3	3.2 Recruit and retain faculty educators and researchers through the provision of resources, support, and recognition	<ul style="list-style-type: none"> <li>Number of searches conducted</li> <li>Percent of offers accepted</li> <li>Salary support for faculty, by rank, equal to or above 2013 ASPPH median (public and private, non-physicians)</li> <li>Percent of faculty promoted to associate professor</li> <li>Percent of professors in tenure-track who are tenured</li> <li>Retention rate of faculty</li> <li>Number of faculty participating in leadership programs</li> <li>Percent of faculty participating in faculty development programs</li> </ul>
<b>Goal 4: Strengthen the School's identity- Strengthen the three partner enterprise in academically meaningful and highly visible ways while maintaining strong, primary links to our three campuses and their resources and facilities</b>		
Priority: 4 Goal: 1	4.1 Enhance and facilitate collaboration, communication, and participation across partner institutions	<ul style="list-style-type: none"> <li>Number of all-school faculty meetings</li> <li>Number of faculty who participate in all-school meetings by campus</li> <li>Proportion of faculty participating on school-wide committees, by campus</li> <li>Number of pilot grants provided by School for cross-campus collaborations</li> </ul>
<b>Goal 5: Build community bonds through training and service- Meet the needs of both the professional public health community and the populations we serve through training and outreach activities that impact population health needs</b>		
Priority: 3 Goal: 4	5.1 Maintain strong connections to public health practice through involvement of public health practitioners in the School's activities	<ul style="list-style-type: none"> <li>Number of clinical, affiliate, adjunct, and secondary appointments</li> <li>Percent of clinical, affiliate, adjunct and secondary faculty who work in public health practice</li> <li>Percent of School committees with community and workforce members</li> </ul>

STRATEGIC PLAN ITEM	GOAL/OBJECTIVE	INDICATORS
Priority: 5 Goal: 1	5.2 Increase the reach and effectiveness of training and technical assistance offered by ColoradoSPH to the public health workforce in Colorado	<ul style="list-style-type: none"> <li>• Number of public health practice trainings per year</li> <li>• Number of trainees per year</li> <li>• Number of ColoradoSPH primary faculty who deliver seminars, workshops, and webinars in community settings</li> </ul>
Priority: 5	5.3 Faculty will provide service to the field of public health	<ul style="list-style-type: none"> <li>• Number of faculty who are involved in Colorado Public Health Association and/or APHA Sections and Committees</li> <li>• Number of faculty who hold leadership positions in discipline-related professional associations</li> <li>• Number of faculty who hold editorial positions for professional and scientific journals</li> <li>• Number of faculty serving as members of community based organizations, community advisory boards, public health agencies, or as consultants to industry groups on public health issues</li> </ul>

### 1.1.E DESCRIPTION OF THE MANNER THROUGH WHICH THE MISSION, VALUES, GOALS AND OBJECTIVES WERE DEVELOPED, INCLUDING A DESCRIPTION OF HOW VARIOUS SPECIFIC STAKEHOLDER GROUPS WERE INVOLVED IN THEIR DEVELOPMENT

The mission, vision, values, and goals of ColoradoSPH have been revisited by the academic community on several occasions since initial adoption, and the Vision and Values statements were revised within the context of a strategic planning process initiated in 2013 and, by design, are constantly in revision, with active implementation and monitoring activities. It has been primarily through this process that immediate stakeholders, including those in the community, have been involved. A description of that process follows:

In the immediate years after opening in 2008, ColoradoSPH accomplished important start-up goals, among them creating capacity for teaching and research excellence, receiving school-wide accreditation (2010), and most recently, recruiting a new dean in 2012. By 2013, the focus had shifted to addressing critical regional public health needs in a sustainable manner. The overall focus today is on continuously improving our instructional programs, advancing public health science and practice, and securing a financially robust future, with the goal of becoming a mature, but still evolving, school of public health by 2018. The work that resulted in the Strategic Plan for 2013-18 incorporated prior planning efforts and articulated with university and campus priorities within a formal planning framework.

The strategic planning process incorporated visioning and pre-planning exercises that had been conducted in 2011-12 with broad-based participation by faculty, students, and staff from all campuses. A SWOT analysis was conducted, along with additional work on identifying critical areas for development. The 2012 documents, “Who We Are” and “Where We’re Headed” (Resource File 1.1.e(1)) and “Defining Strengths Summary” (Resource File 1.1.e(2)) were products of those pre-planning processes.

The planning process was attentive to major priorities developed for CU Anschutz, including:

1. Ensuring the financial future
2. Providing outstanding programs to meet health care needs
3. Continuing outstanding academic programs
4. Enhancing student success and well-being
5. Enhancing research and creative activities
6. Building relationships with diverse communities
7. Enhancing campus diversity and a culture of inclusion

The Bryson & Alston Planning Model (Bryson & Altson, 2005) was used as a framework for designing ColoradoSPH planning activities. A formal Strategic Planning Portfolio was established in the ColoradoSPH Dean's Office and was made available online to all members of the ColoradoSPH community.

On January 31, 2013, Dean Goff hosted a strategic planning kick-off meeting to review the planning process with the Executive Council and Faculty Senate. The vision and mission statements of the School, along with pre-planning documents described above, were reviewed by the dean and associate dean for strategic planning and development with deans, chairs, faculty senate, executive council, and funding partners of the School. Based on those conversations, a draft list of strategic priorities – organized around the major priorities of the campus – was developed by the deans for review and discussion by the Faculty Senate and the Executive Council. Associate Dean Albino then met with all department chairs to review plans of the departments and to consider how those plans fit both the strategic priorities and the strategic directions for the School. On March 1, 2013, a school-wide meeting was held to discuss the five strategic priorities that had been identified. Those attending worked in small groups to identify the goals they thought were most important to advance in each of those priority areas.

Strategic Priority Committees (SPCs) then were appointed and charged with drafting goals and objectives, measurable outcomes, and suggested timelines for each of the campus and School priorities. SPC chairs served as the School's Strategic Planning Steering Committee (SPSC). Individual SPC composition included representatives from faculty, students, staff, and community constituencies. Associate Dean Albino then worked with the SPCs to compile SPC reports and provide a draft strategic plan, which then was reviewed and approved by the School's Faculty Senate and Executive Council. The draft was made available for broad community input and formally presented by the dean to the faculty, students, and staff during an open forum in April 2013. A final developmental stage of the plan involved more fully considering costs of proposed action steps and establishing final timelines for completion. The plan was shared and discussed in detail with the ColoradoSPH Inter-Institutional Steering Committee and the ColoradoSPH Advisory Board, and with the five health foundations that provided substantial support for the establishment of the School.

The Strategic Planning Steering Committee, along with the dean and associate dean for strategic planning and development, have been charged with monitoring of the strategic plan. The current 2015 revision of the strategic plan incorporates the results of their ongoing work. Beginning in late 2014 and extending into 2015, this group has reported regularly to the Executive Council and the Faculty Senate to share progress and obtain input on changes and challenges, and to ensure that any problems or changes in direction are appropriately understood and addressed by the School.

The strategic plan is primarily oriented towards the processes to move the School forward. The objectives, measures, and targets shown in Tables 1.1.d and 1.2.c are primarily quantitative. Quantitative targets were developed through a process in which we reflected on our targets in 2010, where we are now, and where we would like to be in three years. Targets were discussed by School leaders in executive council meetings, bi-weekly meetings within the dean's office, and meetings involving deans and chairs. Targets were reviewed by faculty senate leaders and their input was incorporated. Some targets are conservative and reflect our current status, such as quantitative targets for student ratings of courses and teaching. Some reflect what we believe are typical academic expectations, such as quantitative targets for faculty publications. Some reflect aspirations that we have not yet met, such as co-curricular activities for students (2 per year), incorporation of health equity content in courses (90%), and involvement of students in service (90%). Some targets were difficult to establish and ultimately somewhat arbitrary. For illustration, take the example of "percent of funded projects that involve students." We are firmly committed to involving students in research and see our research projects as excellent opportunities for students to learn and financially support their education. However, establishing a specific target is difficult and depends on the types of research projects that the School houses at any particular time. For example, it may not be feasible for international projects to involve students. We chose a relative modest target of > 25%; currently nearly 60% of our funded research projects report involvement of students. Regardless of these factors, we believe it is important to track where we are on these measures so that we can respond if something seems out of line. For the target "percentage of faculty participating in faculty development programs," we were specifically thinking of formal programs attended by faculty that would be reflected in their CVs (which is our source for this information). We reasoned that a faculty member might participate in a formal development program every 5-10 years, while participating in informal programs (such as faculty meetings focused on specific teaching approaches) on an ongoing basis. Thus, we selected 10% as the annual target for formal activities. Some measures that we are tracking are listed as having no target. Examples include "number of faculty with clinical, adjunct, affiliate, and secondary appointments" (5.1) and total numbers of publications (peer reviewed articles, books, and book chapters) (2.1). These represent measures that we want to track but have no basis for picking a specific target. We have a large number of faculty (183) in non-primary appointments, and see no need to set a specific target in order to either increase or decrease this number, but we believe it is important to monitor it. Since the total number of publications is dependent on the number of faculty, we believe it is more useful to have a per capita target (3 publications per year) than to have a target for the total across all faculty. Still, we judge that the total shows the overall productivity at the School level and is helpful to track and report.

#### **1.1.F DESCRIPTION OF HOW THE MISSION, VALUES, GOALS AND OBJECTIVES ARE MADE AVAILABLE TO THE SCHOOL'S CONSTITUENT GROUPS, INCLUDING THE GENERAL PUBLIC, AND HOW THEY ARE ROUTINELY REVIEWED AND REVISED TO ENSURE RELEVANCE**

The mission, vision, and values of ColoradoSPH have been reviewed primarily within the context of the School's ongoing planning activities (see also section 1.1.e). These statements are available on the School's website (<http://www.ucdenver.edu/academics/colleges/PublicHealth/About/Pages/identity.aspx>). Over the past two years, direct attention has been given to progress related to guiding priorities, goals, strategies, and action steps. The Strategic Planning Steering Committee provided initial oversight of progress related to

performance on the plan. This responsibility has been assumed by the Executive Council, a more broadly representative group. Department chairs, center directors, and others within the School are also directly charged with the responsibility for monitoring progress in a variety of specific areas. The associate dean for strategic planning and development and the associate dean for faculty have met with the Faculty Senate to ensure that their input is provided, and that their recommendations for any changes are taken to the Executive Council. (Note: The position of associate dean for strategic planning and development was eliminated on July 1, 2015 and the responsibilities of this role have transitioned to the dean.) During 2015, specific sets of goals have been reviewed at each of the monthly Executive Council meetings. Focused meetings with the ColoradoSPH Inter-Institutional Steering Committee, Advisory Board, and with representatives of the health foundations supporting the School have provided additional input. In addition, the dean provides an update on the status of implementation during all-faculty meetings and departmental faculty meetings, and town hall meetings with students on all three campuses. The associate dean for finance and administration provides updates at all-staff meetings.

### **1.1.G ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met.

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#### **STRENGTHS**

ColoradoSPH has an articulated mission, vision, and values, and has devoted substantial time and careful thought over the past several years to developing and implementing a strategic plan. This plan has specific action steps, and maps to the outcome measures developed for the School. Current implementation and monitoring activities indicate that we are making strong progress towards achievement of the goals in our strategic plan. The active and ongoing nature of this planning process means that most faculty members are aware of School priorities and are able to view their own work within the context of the School's mission, vision, and goals. The strategic plan has been shared with community stakeholders, including the five Colorado health foundations that provided start-up funding and continue to provide substantial support for the establishment of the School.

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#### **WEAKNESSES**

Additional outreach activities to inform both the public health community and the public at large of the goals of our School may be warranted. Still a relatively new school and the first school of public health in the region, we face the challenge of educating those around us about the field of public health more generally, the work that we do, and the educational and research roles we play.

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#### **PLANS**

We will continue our current approach for implementation and monitoring of the strategic plan. We will continue to update the faculty, staff, students, the Inter-Institutional Steering Committee, Advisory Board, and affiliated health foundations on our progress on at least an annual basis. We are formalizing an internal vision statement and expect it to be finalized by year's end. We are developing a set of materials to assist in telling the story of public health, generally, and ColoradoSPH, specifically, to community leaders, members, and other stakeholders. This will be finalized by year's end. We will seek other venues to present and discuss our plans, including the annual Colorado Public Health Association meetings held each September.



## 1.2 EVALUATION

### 1.2.A DESCRIPTION OF THE EVALUATION PROCESSES USED TO MONITOR PROGRESS AGAINST OBJECTIVES DEFINED IN CRITERION 1.1.D, INCLUDING IDENTIFICATION OF THE DATA SYSTEMS AND RESPONSIBLE PARTIES ASSOCIATED WITH EACH OBJECTIVE AND WITH THE EVALUATION PROCESS AS A WHOLE

Evaluation activities take place at multiple levels within the School. At the broadest level, evaluative data are reviewed by the Executive Council of the School for decisions that apply to the School as a whole. At the departmental level, department chairs are provided information to inform decision-making about departmental finances, educational programs, and research activities. At the educational program level, program directors receive information for decision-making. Finally, evaluation of individual program components, such as courses, practica, and capstone experiences, is used by course instructors, program directors, and department chairs for program improvement.

Evaluation activities take place on a variety of schedules. Some components are implemented every few years (e.g., faculty data regarding productivity in publications, etc.), some are annual (e.g., alumni surveys), and many are implemented each semester (e.g., student GPAs, specific course quality). During critical time periods, such as the beginning of each semester, monitoring takes place on a weekly basis (e.g., course enrollment).

Many of our evaluation systems have been in place since the inception of the School in 2008; others have been initiated as a result of this self-study, which identified the need for additional information. For example, in 2013 we initiated student competency assessments pre- and post-capstone experience.

Evaluation activities are overseen by the associate dean for academic affairs and implemented by the program evaluation coordinator. Table 1.2.a below shows data systems and responsible parties for each objective.

TABLE 1.2.A DATA SYSTEMS AND RESPONSIBLE PARTIES FOR EVALUATION OF MEASURABLE OUTCOMES

Goal/objective	Data system(s)	Responsible parties
<b>Goal 1: Enhance and facilitate student success in public health learning opportunities.</b>		
1.1 Recruit and retain students of excellence	University of Colorado Denver Institutional Research data based on applications through SOPHAS, provided by Paula Dickson, Associate Director, Institutional Research and Effectiveness, and Dan Hussey, Manager of Strategic Enrollment	Jan Gascoigne, Associate Dean for Student Affairs
1.2 Identify funding opportunities for student support in all programs and all campuses, including identification of paid positions on research grants, training grants, and scholarships	ColoradoSPH Financial records; ColoradoSPH Human Resources records; Office of Grants and Contracts records; generated by Marshall Ward, Assistant Director for Finance; Tracy Gray, Assistant Director for Human Resources; Richard Sasscer, Grants and Contracts Officer	Jan Gascoigne, Associate Dean for Student Affairs
1.3 Provide high quality educational programs in public health	CU-SIS database; student online evaluations of courses; student exit surveys; logs of co-curricular activities offered; generated by Chloe Bennion, Program Evaluation Coordinator	Lori Crane, Associate Dean for Academic Affairs
1.4 Provide online and remote learning opportunities to reach working professionals	Course schedules through CU-SIS; generated by Chloe Bennion, Program Evaluation Coordinator	Lori Crane, Associate Dean for Academic Affairs
1.5 Graduate professionals who are competent and prepared to work in public health or other health-related areas or are prepared to pursue further educational opportunities	Exit Survey of students; Alumni surveys; Preceptor Final Evaluation of Practicum Student; Baseline and Final Competency Reports [Capstone]; CPH and CHES exam reports; generated by Chloe Bennion, Program Evaluation Coordinator; Olivia Jolly, Faculty Director for Practice-Based Learning; and Ben Weihrauch, Manager of Career and Employer Relations	Lori Crane, Associate Dean for Academic Affairs

Goal/objective	Data system(s)	Responsible parties
1.6 Promote student involvement in education, research, and service activities with faculty and other professionals	Faculty activity survey; student exit survey; generated by Chloe Bennion, Program Evaluation Coordinator	Lori Crane, Associate Dean for Academic Affairs
1.7 Enhance career development and employer relations programs	Student Exit Survey; logs of career counseling events; generated by Chloe Bennion, Program Evaluation Coordinator	Ben Weihrauch, Manager of Career and Employer Relations
1.8 Intentionally create a vibrant and interactive student experience	Logs of social events; attendance records for student council meetings; generated by Office of Student Affairs	Jan Gascoigne, Associate Dean for Student Affairs
1.9 Build an inclusive and diverse ColoradoSPH that is reflective of the communities that public health serves	CU-SIS database; student exit survey; alumni survey; scholarship records; generated by Chloe Bennion, Program Evaluation Coordinator	Jan Gascoigne, Associate Dean for Student Affairs; Lori Crane, Associate Dean for Academic Affairs; Carolyn DiGuseppi, Associate Dean for Faculty; Kevin Young, Director for Human Resources
<b>Goal 2: Conduct research and creative activities for maximum impact on population health.</b>		
2.1 Advance knowledge through the dissemination of publications and presentations	Faculty activity survey; Faculty CV data collection; generated by Chloe Bennion, Program Evaluation Coordinator	Department Chairs
2.2 Maintain a large portfolio of sponsored grant awards across ColoradoSPH	Office of Grants and Contracts database; faculty activity survey; generated by Richard Sasscer, Grants Manager; Chloe Bennion, Program Evaluation Coordinator	Department Chairs; Center Directors; Spero Manson, Associate Dean for Research
2.3 Increase research efficiency and productivity by leveraging university resources and improving school-wide services for administration and support of research, including collaborative grants across partner institutions	Faculty activity survey; ColoradoSPH financial records; generated by Chloe Bennion, Program Evaluation Coordinator; Anthony Airhart, Associate Dean for Administration and Finance	Department Chairs; Center Directors; Spero Manson, Associate Dean for Research
2.4 Increase research opportunities and mentoring for junior faculty	Log of faculty development activities related to research; Department Chair survey; generated by Chloe Bennion, Program Evaluation Coordinator	Department Chairs; Center Directors; Spero Manson, Associate Dean for Research

Goal/objective	Data system(s)	Responsible parties
<b>Goal 3: Ensure the financial future of ColoradoSPH in order to sustain and selectively expand programs and services.</b>		
3.1 Maintain the financial resources to achieve the School's mission and vision	ColoradoSPH financial records; generated by Anthony Airhart, Associate Dean for Administration and Finance	David Goff, Dean
3.2 Recruit and retain faculty educators and researchers through the provision of resources, support, and recognition	ColoradoSPH Human Resources records; Faculty CV data collection; generated by Bettina-Martine Warden, Faculty Affairs Coordinator; Chloe Bennion, Program Evaluation Coordinator	Department Chairs; Center Directors; David Goff, Dean
<b>Goal 4: Strengthen the School's identity.</b>		
4.1 Enhance and facilitate collaboration, communication, and participation across partner institutions	Logs of all-faculty meetings; membership records for school committees; faculty CV data collection; ColoradoSPH financial records; generated by Chloe Bennion, Program Evaluation Coordinator; Anthony Airhart, Associate Dean for Administration and Finance	David Goff, Dean; Associate Deans; Department Chairs; Center Directors
<b>Goal 5: Build community bonds through training and service.</b>		
5.1 Maintain strong connections to public health practice through involvement of public health practitioners in the School's activities	Faculty affairs records; faculty CV data collection; membership records for school committees; generated by Bettina-Martine Warden, Faculty Affairs Coordinator; Chloe Bennion, Program Evaluation Coordinator	Elaine Morrato, Associate Dean for Public Health Practice; Cerise Hunt, Director of Center for Public Health Practice
5.2 Increase the reach and effectiveness of training and technical assistance offered by the ColoradoSPH to the public health workforce in Colorado	Training logs for Center for Public Health Practice; faculty CV data collection; generated by Chloe Bennion, Program Evaluation Coordinator	Elaine Morrato, Associate Dean for Public Health Practice; Cerise Hunt, Director of Center for Public Health Practice
5.3 Faculty will provide service to the field of public health	Faculty CV data collection; generated by Chloe Bennion, Program Evaluation Coordinator	Department Chairs; Center Directors; Elaine Morrato, Associate Dean for Public Health Practice

## **1.2.B DESCRIPTION OF HOW THE RESULTS OF THE EVALUATION PROCESSES DESCRIBED IN CRITERION 1.2.A ARE MONITORED, ANALYZED, COMMUNICATED AND REGULARLY USED BY MANAGERS RESPONSIBLE FOR ENHANCING THE QUALITY OF PROGRAMS AND ACTIVITIES**

Major sources of data and their uses are described below.

**UNIVERSITY OF COLORADO DENVER INSTITUTIONAL RESEARCH DATA:** The CU Denver/Anschutz Institutional Research (IR) database is the official source of information on applicants, admitted students, matriculated students, enrollment, and graduation. This system integrates applicant information collected as part of the SOPHAS application system, and includes information on student race/ethnicity, sex, age, undergraduate GPA, GRE scores, etc. IR provides aggregate-level (summarized) reports about student activity, including enrollment graduation, retention, and performance. This system also reports employee information, such as salary and headcounts. IR has full access to the information contained in the Central Information Warehouse (CIW), which draws upon both the student and course management system (CU Student Information System, or CU-SIS) and the Human Resources information system (PeopleSoft). IR also conducts data gathering for information not contained in those systems, such as faculty tenure information. IR captures information for ColoradoSPH students at all partnering institutions.

**CU STUDENT INTEGRATED SYSTEMS (CU-SIS):** CU-SIS is the University of Colorado's student information system. This includes course offerings and enrollment, grades, students' personal information, and transcripts. Course enrollment information is provided to the associate dean for academic affairs, associate dean for administration and finance, and department chairs. It is used on an ongoing basis for decisions related to how often courses will be offered, how large courses will be, and how course delivery will be varied depending on course size (e.g., group projects, use of TAs, nature of exams, etc.). Financial projections of tuition revenues are based on this information. GPAs are also generated from the CU-SIS database each semester to monitor student success and identify students who need to be placed on academic probation. CU-SIS captures information for ColoradoSPH students at all partnering institutions.

**INCOMING STUDENT SURVEY:** This survey is administered to all incoming summer and fall MPH students during August of each year. The survey asks about the student's background (e.g., educational background, rural background, previous public health work experience, etc.), preferences for course offerings (e.g., day vs. evening; online vs. in-person; etc.), why the student chose ColoradoSPH, and more. Results are distributed to the associate dean for academic affairs, the associate dean for student affairs, and department chairs for decisions about course offerings. For example, based on these data and course enrollment data from CU-SIS, the School decided that each core MPH course should be offered at least once a year online to accommodate student needs and preferences.

**COURSE EVALUATIONS:** Online course evaluations are conducted during the final 3-4 weeks of each semester. Students rate various aspects of each course and instructor, and provide free-text comments. Response rates are generally around 75%. The course evaluation form can be found in Resource File 1.2.b(1). Results for individual courses are available to instructors soon after data collection is complete (typically 2-6 weeks). Summaries of evaluations are distributed to department chairs, campus directors, and the associate dean for academic affairs each semester, who have full access to detailed course reports (see Resource File

1.2.b(2)). Course evaluations are reviewed with each faculty member as part of the annual faculty performance evaluation (January – March each year). When needed, the associate dean for academic affairs, respective department chair, program director, and instructor meet to discuss needed revisions in courses based on student course evaluations.

**EXIT SURVEY:** An online exit survey is administered to all graduates each semester. The survey asks about satisfaction with their program, facilitators of program completion, future plans, and employment information. Results of the survey are summarized annually after the spring survey. The summary provides results for the MPH as a whole, each MPH concentration, and each of the other educational programs. The summary is distributed to the associate dean for academic affairs, the department chairs, and the associate dean for student affairs. Employment information is used to compile an alumni employment list and distributed to the manager of career and employment services for use in career services development.

**ALUMNI SURVEY:** An online alumni survey is administered in the early spring each year to alumni who are 1, 4, 7 and 10 years post-graduation. This survey inquires about preparedness for the public health workforce, satisfaction with the program, and competency development. Results are summarized each year and distributed to the associate dean for academic affairs, associate dean for student affairs, department chairs, and program directors. Results are used for program improvement and alumni event programming.

**COMPETENCY ASSESSMENT:** At program entry and graduation, students complete a competency assessment for their program/concentration. Mean levels for each competency are compared for changes from before to after the program. An abbreviated competency survey at graduation has been in place since the School's earliest years. In fall 2013, we began asking MPH and Certificate students to rate themselves on the full set of competencies relevant to their programs. The entry competency survey, with the full set of competencies, was first implemented for the MPH and certificate programs in summer 2014. Implementation for other programs occurred in fall 2014. Data are summarized and provided to the associate dean for academic affairs, associate dean for student affairs, department chairs, and program directors each spring. Results are used to identify competencies that are not growing as anticipated and to adjust curricula to fully address each competency.

**PRACTICUM ASSESSMENTS:** Preceptors of practicum students complete a mid-practicum and final evaluation of each student, rating students on various metrics of professionalism and public health competencies, including: attendance/punctuality, cooperation/teamwork, problem solving, dependability, professionalism, initiative, adaptability/flexibility, ability to accept feedback, communication, cultural competency, basic public health skills, policy development, program planning, and leadership. Free-text comments are also elicited along with requests for recommendations for the student's further professional development. Additionally, students provide a final evaluation of the site, preceptor, and class. These data are used to assess the effectiveness of the practicum experience, training needs of preceptors (in order to function effectively as a preceptor), the continuation or discontinuation of practicum sites, and the professional development of students. Data are summarized and provided to the faculty director for practice-based learning.

**MPH CAPSTONE COMPETENCY ASSESSMENT:** There are seven public health cross-cutting competencies that all students address during their capstone experience and each student identifies five additional discipline area competencies that they intend to develop during their capstone experience. Students rate themselves on these 12 competencies (on a 0-3 point scale) before and after the capstone. Capstone preceptors and/or student advisors also participate in these ratings. Results are compiled as averages across competencies and are used to assess the degree to which the capstone experience is contributing to competency development. Data are summarized and provided to the associate dean for academic affairs.

**FACULTY CURRICULUM VITAE DATA COLLECTION:** Faculty members are asked to submit up-to-date CVs each year during their annual evaluations. CVs are used as a source for faculty productivity in: publications (e.g., peer reviewed articles, book chapters, books, etc.); service activities; professional development activities; workforce training activities; leadership positions in professional, scientific, or publishing organizations; and involvement in community public health activities.

**FACULTY DATA REQUEST:** Faculty are provided lists of their publications, grants, paid service, volunteer service, and training activities extracted from their CVs and asked to provide information regarding whether the activity is based within a community and includes community partnerships, public health agency partnerships, and/or student participation. The faculty data request is implemented at the time of accreditation or re-accreditation.

**FINANCIAL, HUMAN RESOURCES, AND GRANTS/CONTRACTS:** The system of record for all financial and human resources information for both restricted and unrestricted funds is PeopleSoft. The Office of Grants and Contracts uses InfoEd for proposal development, routing, and tracking. All data used for financial reports, analysis, resource allocation, and annual salary setting are extracted from one of these systems. As an example, financial data are used in the annual tuition setting process that begins each November. The first step in the process is to have each department determine its maximum admission total. Based on the admission totals an estimated target number of recruits is derived. From the estimated number of new students, various tuition rate scenarios are then developed to project the needed total revenue estimates. The Executive Council then approves a “not to exceed” tuition rate, which is submitted to the CU Board of Regents in February for approval. No later than May, a final tuition rate is then approved and published. Employment records in PeopleSoft are used to track faculty appointments, as well as timelines for promotions and post-tenure reviews.

**LOGS:** Logs are used to track participation in events such as school-wide all-faculty meetings, alumni events, student co-curricular events/activities, career services/advising, work-force development/training activities, etc.

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## **OTHER EVALUATION ACTIVITIES**

Other evaluation activities are conducted by the School that are not directly related to the specific outcome measures used to evaluate progress related to ColoradoSPH’s goals and objectives. They are described below.

**FACULTY:** The School evaluates faculty annually. See Section 4.2.c for descriptions of these processes. The dean evaluates department chairs and associate and assistant deans during this process. Moreover, the dean evaluates campus directors in coordination with their home university supervisors and center directors in coordination with their department chairs. Likewise, the dean is evaluated by the CU Denver/Anschutz provost during this process.

**STAFF:** The School evaluates staff annually using the processes established for their job classes. Supervisors evaluate and develop performance plans with staff annually and summarize this for review by the associate dean for finance and administration. Monthly staff meetings provide opportunities for staff feedback and career development is encouraged and supported by the associate dean for administration and finance staff supervisors.

**EMPLOYER SURVEYS:** Focus groups, key informant interviews and surveys of employers of ColoradoSPH graduates are conducted every 2-3 years. Questions focus on the level to which graduates demonstrate attainment of competencies, satisfaction with the performance of graduates, and suggestions for improving our curricula. The most recent was a series of key informant interviews in March 2015.

**STUDENT TOWN HALL MEETINGS:** Two town hall meetings with students occur on each campus every year, one led by the associate dean for student affairs and one led by the dean. These sessions provide an opportunity for students to provide input on issues of general interest or concern and to hear updates on issues of importance, including implementation of the strategic plan.

**CONSULTATION ON THE COLORADOSPH ORGANIZATION, ADMINISTRATION, AND CULTURE:** In fall-winter of 2014-15, the School engaged a consultant (Dr. William Flexner) to lead a process that included a diagnostic assessment of the functioning of the School (through the eyes of junior and senior faculty, staff, chairs/directors, and the dean's office) and facilitation of a 2-day retreat of School leadership to align our roles, responsibilities, and values. As a result, the administration is moving forward to improve operations and administrative functioning, and a structured survey of the performance of deans, chairs, and administrative leads (e.g., director of human resources) is planned for fall 2015.

**PRACTITIONERS:** The practice community provides feedback to the School through a variety of venues including ColoradoSPH community advisory boards and the Center for Public Health Practice (CPHP), preceptor feedback about practicum placements, and participation on School committees. Workforce needs assessments are conducted annually by the CPHP in collaboration with the Colorado Department of Public Health and Environment (CDPHE), the Public Health Alliance, and Colorado AHECs. A formal training needs assessment will be done annually for the 6-state DHHS Region VIII in a partnership between the Rocky Mountain Public Health Training Center (within CPHP) and the University of Utah. This allows the School to assess and plan for continuing education needs as well as to better understand the skill sets required of future students. Each of these sources provides the School with valuable input about current and planned educational and research programs.



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## UNIVERSITY-MANDATED EVALUATIONS

In addition to the evaluation activities specifically designed for use by the School, there are several university-mandated evaluations that occur on a regular basis and provide additional input into the operations of the School. These include:

**REVIEW OF DEPARTMENTS AND CENTERS:** The University of Colorado requires that departments and centers undergo external evaluation every 5-7 years. This process includes a detailed departmental self-study of programs, activities, and processes within the department. The self-study is reviewed by external reviewers and by the CU Denver/Anschutz program review panel. Issues that are identified require annual follow-up for a period of three years to ensure that deficiencies have been corrected. The School and CU Denver/Anschutz do not formally evaluate the departments located at the partner institutions. These evaluations are conducted under parallel processes by the partner universities. Table 1.2.b shows the timeframe of these reviews.

TABLE 1.2.B SCHEDULE OF REVIEWS FOR DEPARTMENTS AND CENTERS

Department/Center	Most recent review	Next review due
Latino/a Research and Policy Center	Not applicable	2016-17
Dept. of Epidemiology; Dept. of Biostatistics; Center for Global Health	2012-13	2019-20
Community and Behavioral Health; Centers for American Indian/Alaska Native Health; Center for Public Health Practice	2013-14	2020-21
Dept. of Health Systems, Management and Policy; Dept. of Environmental and Occupational Health	2014-15	2021-22

**ACADEMIC PROGRAM REVIEW:** As outlined in Article I, Section 1 of the Graduate School Rules, the Graduate School, together with the faculty, approves and evaluates graduate programs (MS and PhD degree programs) to ensure that the graduate programs are effective and that they maintain high standards. In this capacity, the Graduate School dean, in conjunction with the Graduate Council, is responsible for conducting periodic reviews of all existing graduate programs. To avoid duplication of effort and where appropriate, such program reviews are performed as an adjunct to the review of the program for accreditation or during a review of the department, school or college.

**RESIDENCY PROGRAM REVIEWS:** The ColoradoSPH residency programs in General Preventive Medicine and Public Health and in Occupational and Environmental Medicine conduct a formal evaluation of the curriculum, preceptors, and clerkship locations each year. The respective residency advisory committees (RAC) discuss all survey results and make adjustments as needed. The external Accreditation Council for Graduate Medical Education conducts reviews of both residency programs annually, based on resident and faculty surveys and program reports, issuing recommendations, warnings or citations as appropriate. The RACs respond to these reports by revising program content and delivery as required.

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## **ADDITIONAL EVALUATION ACTIVITIES AT CSU AND UNC CAMPUSES**

The ColoradoSPH at UNC's MPH Community Advisory Board consists of health professionals throughout Colorado and meets annually to provide feedback on the UNC MPH program. The feedback has been used to enhance course content, add electives, and respond to the changing needs of the community health education profession.

The CSU MPH Executive Committee provides guidance and direction for the program and responds to feedback from students and faculty regarding curriculum and other program-related matters at CSU. Courses and practicum sites have been added in response to student requests for new learning opportunities.

**CSU AND UNC PROGRAM REVIEWS:** Program reviews at CSU and UNC occur in a similar fashion to that described above for CU Anschutz. Below are links to their review standards:

- CSU: <http://www.accreditation.colostate.edu/goals.aspx>
- UNC: <http://www.unco.edu/assessment/programReview/>

CSU uses a university-wide Plan for Researching Improvement and Supporting Mission (PRISM) process for evaluation of programs. Program review occurs on a 5-7 year cycle for CSU programs. Program review at UNC occurs every five years.

### **1.2.C DATA REGARDING THE SCHOOL'S PERFORMANCE ON EACH MEASURABLE OBJECTIVE DESCRIBED IN CRITERION 1.1.D MUST BE PROVIDED FOR EACH OF THE LAST THREE YEARS**

See the following page for data on each measurable objective.

TABLE 1.2.C (OUTCOME MEASURES TEMPLATE)

Goal 1: Enhance and facilitate student success in public health learning opportunities - Deliver excellent public health learning experiences that draw on the talents of a multi-campus school and reflect the School's core values related to health equity, collaborative effort, and evidence bases for practice.						
Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
1.1 Recruit and retain students of excellence	Average undergraduate GPA's of newly enrolled students, by degree	MPH – 3.30/4.00	3.36	3.35	3.31	4.3
		MS – 3.30/4.00	3.58	3.70	3.24	
		DrPH – 3.30/4.00	3.24	3.64	3.39	
		PhD – 3.30/4.00	3.46	3.79	3.41	
	Mean verbal and quantitative GRE scores (percentiles) of newly enrolled students, by degree	MPH GRE-Q – 50%	52%	47%	48%	
		MPH GRE-V – 50%	68%	59%	63%	
		MS GRE-Q – 50%	64%	71%	68%	
		MS GRE-V – 50%	67%	80%	71%	
		DrPH GRE-Q – 50%	70%	63%	51%	
		DrPH GRE-V – 50%	68%	64%	57%	
		PhD GRE-Q – 50%	52%	44%	64%	
		PhD GRE-V – 50%	50%	67%	78%	
	Percent of incoming MPH students who have public health work experience	50%	63%	67%	63%	
	Total student enrollment in MPH programs, by concentration and focus area	Applied Biostatistics (CU) - 17	11	17	17	
		Community and Behavioral Health (CU) - 77	75	63	71	
		Global Public Health plus Community and Behavioral Health (CU)- 15	n/a	n/a	8	
		Environmental and Occupational Health (CU)- 19	19	16	13	
		Global Public Health plus Environmental and Occupational Health (CU)- 5	n/a	n/a	3	

**Goal 1: Enhance and facilitate student success in public health learning opportunities - Deliver excellent public health learning experiences that draw on the talents of a multi-campus school and reflect the School's core values related to health equity, collaborative effort, and evidence bases for practice.**

Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
1.1 Recruit and retain students of excellence (cont'd)	Total student enrollment in programs, by concentration	Epidemiology (CU)- 73	54	68	71	4.3
		Global Public Health plus Epidemiology (CU)- 10	n/a	n/a	9	
		Health Systems Management (CU)- 8	n/a	n/a	n/a	
		Health Systems, Management and Policy (CU)- 43	41	44	42	
		Global Public Health plus Health Systems, Management and Policy (CU)-17	n/a	n/a	8	
		Health Services Research (CU)- 8	n/a	4	3	
		Leadership and Public Health (CU)- 12	n/a	n/a	4	
		Maternal and Child Health (CU) -22	n/a	11	17	
		Global Public Health plus Maternal and Child Health-10	n/a	n/a	3	
		MPH-Custom Concentration – No Target	n/a	n/a	8	
		Animals, People, and the Environment (CSU)- 20	12	9	13	
		Environmental and Occupational Health (CSU) - discontinued	2	2	0	
		Epidemiology (CSU)- 27	9	12	19	
		Global Health and Health Disparities(CSU-30	17	21	27	
		Health Communication (CSU)- 16	4	6	7	
		Physical Activity and Healthy Lifestyles (CSU) - 24	2	12	16	

**Goal 1: Enhance and facilitate student success in public health learning opportunities - Deliver excellent public health learning experiences that draw on the talents of a multi-campus school and reflect the School's core values related to health equity, collaborative effort, and evidence bases for practice.**

Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
1.1 Recruit and retain students of excellence (cont'd)	Total student enrollment in programs, by concentration (cont'd)	Public Health Nutrition (CSU) - 10	5	5	4	4.3
		Community Health Education (UNC)- 42	26	34	30	
	Number of students with Global Public Health plus add-on	57	n/a	n/a	31	
	Total student enrollment in DrPH programs, by focus area	Community and Behavioral Health - 13	10	12	13	
		Environmental and Occupational Health - 4	n/a	n/a	2	
		Epidemiology - 8	4	5	5	
	Total student enrollment in MS/PhD programs	MS, Biostatistics - 25	24	20	24	
		PhD, Biostatistics - 27	11	9	8	
		MS, Epidemiology - 7	8	7	8	
		PhD, Epidemiology - 22	15	15	19	
		MS, Health Services Research - 5	n/a	0	5	
		PhD, Health Services Research - 16	13	17	16	
	Total student enrollment in joint degree programs, by program	Medical Doctor/MPH – 5	7	3	6	
		Doctor of Veterinary Medicine/MPH – 5	5	4	4	
		Master of Urban and Regional Planning/MPH - 2	2	2	6	
		Master of Public Affairs/MPH - 2	3	6	11	
		Doctor of Nursing Practice/MPH - 6	n/a	n/a	7	
	Student enrollment in certificate programs	Certificate in Public Health Science (CU)- No Target	65	74	77	
		Certificate in Public Health Science (UNC)- 12	9	7	6	
		Certificate in Global Public Health (CU) - No Target	12	14	9	

Goal 1: Enhance and facilitate student success in public health learning opportunities - Deliver excellent public health learning experiences that draw on the talents of a multi-campus school and reflect the School's core values related to health equity, collaborative effort, and evidence bases for practice.						
Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
1.1 Recruit and retain students of excellence (cont'd)	Graduation rate of MPH/MS students (within 5 years)	MPH – 80%	94%	90%	92%	2.7
		MS – 80%	100%	63%	63%	
	Graduation rate of DrPH/PhD students (within 7 years)	DrPH – 80%	n/a	n/a	n/a	
		PhD – 80%	86%	83%	50%	
	Graduation rate of dual degree students (both degrees within 5 years of entering the MPH program) <sup>1</sup>	80%	n/a	n/a	n/a	2.7
	Median time to graduation, by degree	MPH – 2 years	2	2	2	
		DrPH – 5 years	n/a	n/a	n/a	
		MS – 3 years	3	3.5	2	
		PhD – 5 years	8	7	4	
1.2 Identify funding opportunities for student support in all programs and all campuses, including identification of paid positions on research grants, training grants, and scholarships	Annual amount of scholarships distributed	>\$400,000	\$251,711.45	\$480,021.76	\$799,419.83	3.1
	Percent of students participating in grant-funded research	MPH - 40%	40%	45%	53%	
		MS - 80%	80%	86%	80%	
		PhD - 80%	100%	88%	100%	
		DrPH – 80%	n/a	n/a	n/a	
	Number of training grants received	3	1	1	2	

**Goal 1: Enhance and facilitate student success in public health learning opportunities - Deliver excellent public health learning experiences that draw on the talents of a multi-campus school and reflect the School's core values related to health equity, collaborative effort, and evidence bases for practice.**

Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
1.3 Provide high quality educational programs in public health	Ratio of student FTE to faculty FTE across all programs	7.0	3.6	3.4	4.0	1.7
	Proportion of faculty participating in faculty development activities related to teaching	10%	13.2%	14.1%	13.2%	
	Mean overall course (c) and teaching (t) evaluation results of courses, by department	Biostatistics (CU) – 4.0/5.0	4.0(c) 4.2(t)	4.3(c) 4.3(t)	3.9(c) 4.2 (t)	4.2
		Community and Behavioral Health (CU) – 4.0/5.0	4.4(c) 4.4(t)	4.1(c) 4.1(t)	4.1(c) 4.3(t)	
		Environmental and Occupational Health (CU)– 4.0/5.0	4.2(c) 4.3(t)	4.2(c) 4.2(t)	4.2(c) 4.4(t)	
		Epidemiology (CU)– 4.0/5.0	4.1(c) 4.1(t)	3.9(c) 4.2(t)	4.0(c) 4.1(t)	
		Health Services, Management and Policy (CU) – 4.0/5.0	3.3(c) 3.6(t)	3.7(c) 3.8(t)	3.7(c) 3.8(t)	
		Public Health Foundations, Practicum, Capstone – (CU) 4.0/5.0	3.8(c) 4.1(t)	3.9(c) 3.8(t)	3.9(c) 4.2(t)	
		CSU – 4.0/5.0	3.7(c)	3.8(c)	3.9(c)	
		UNC – 4.0/5.0	4.0(c)	4.1(c)	3.6(c)	
	Ratings of recommending the program to others	5.0/7.0	5.0	5.3	5.4	2.7
	Satisfaction with advising/ mentoring - Masters	5.0/7.0	5.3	5.1	5.4	4.4
	Satisfaction with advising/ mentoring - Doctoral	5.0/7.0	6.66	6.11	6.00	
	Ratings of program evaluation items	5.0/7.0 on relevant survey items	5.0	5.2	5.24	2.7

Goal 1: Enhance and facilitate student success in public health learning opportunities - Deliver excellent public health learning experiences that draw on the talents of a multi-campus school and reflect the School's core values related to health equity, collaborative effort, and evidence bases for practice.						
Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
1.3 Provide high quality educational programs in public health (cont'd)	Number of co-curricular activities offered, such as cultural competency, writing, library search skills, public speaking, ethical conduct	2	0	1	1	
	Percent of courses that include health equity content	CU-90%	Unav.	Unav.	65%	1.8
		CSU- 90%	Unav.	Unav.	62%	
		UNC – 90%	Unav.	Unav.	66%	
1.4 Provide online and remote learning opportunities to reach working professionals	Number of courses fully online	CU – 20	8	7	13	2.14
		CSU – 0	0	0	0	
		UNC – 6	5	6	6	
	Number of programs available fully online	2	0	0	2	
	Percent of core MPH courses offered online	100%	67%	83%	100%	
	Course evaluations of online vs. in-person courses	Online – 4.0/5.0	4.0	3.9	3.8	4.2
		In-Person – 4.0/5.0	3.9	4.0	4.0	
1.5 Graduate professionals who are competent and prepared to work in public health or other health-related areas or are prepared to pursue further educational opportunities	Job placement/ continued education rates of graduates within 12 months of graduation <sup>2</sup>	90%	100%	99%	98%	2.7
	Graduates' self-assessment of competency attainment	5.0/7.0 on relevant survey items	5.2	5.6	6.0	2.7
	Preceptors' satisfaction with quality of students' practica work (number of items rated satisfactory out of 14 total)	MPH – 12/14	13.8	13.9	13.9	2.4, 2.7
		DrPH- 12/14	n/a	n/a	14.0	



**Goal 1: Enhance and facilitate student success in public health learning opportunities - Deliver excellent public health learning experiences that draw on the talents of a multi-campus school and reflect the School's core values related to health equity, collaborative effort, and evidence bases for practice.**

Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
1.5 Graduate professionals who are competent and prepared to work in public health or other health-related areas or are prepared to pursue further educational opportunities (cont'd)	Pass rates for certification exams (CHES and CPH)	90%	100%	100%	100%	2.7
	Percent of practica that are done in community settings	90%	94%	90%	86%	2.4
	Percent of capstone projects that are done in community settings	60%	68%	71%	64%	2.5
1.6 Promote student involvement in education, research, and service activities with faculty and other professionals	Percent of funded projects that involve students	>25%	45%	52%	58%	3.1
	Percent of publications of faculty in the ColoradoSPH that include students as coauthors <sup>3</sup>	>15%	13.5%	18.0%	17.0%	3.1
	Percent of students participating in service activities while in training	MPH- 90%	40%	40%	47%	3.2
		DrPH- 90%	n/a	n/a	n/a	
		MS- 90%	20%	29%	40%	
		PhD- 90%	100%	67%	33%	
1.7 Enhance career development and employer relations programs	Student evaluations of career placement and counseling	5.0/7.0	4.4	4.6	4.9	4.4
	Number of career services events	5-8	Unav.	Unav.	11	
	Number of career advising sessions	150	Unav.	Unav.	234	

Goal 1: Enhance and facilitate student success in public health learning opportunities - Deliver excellent public health learning experiences that draw on the talents of a multi-campus school and reflect the School's core values related to health equity, collaborative effort, and evidence bases for practice.						
Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
1.8 Intentionally create a vibrant and interactive student experience	Number of social events for students	No Target	14	28	34	1.5
	Number of ColoradoSPH students actively involved in Student Council	CU - Increase	6	6	7	
		CSU - Increase	7	7	7	
		UNC- Increase	10	10	11	
	Number of school-wide alumni events held, annually	3	0	1	3	
1.9 Build an inclusive and diverse ColoradoSPH that is reflective of the communities that public health serves	Percent of applicants from underserved backgrounds	Racial/Ethnic – 30%	27%	23%	26%	1.8
		International – 7%	5%	6%	10%	
		1 <sup>st</sup> Generation Undergrad (MPH/DrPH) – 15%	17%	16%	16%	
		Rural <sup>4</sup> – 20%	Unav.	Unav.	Unav.	
	Percent of newly enrolled students from underserved backgrounds	Racial/Ethnic – 30%	21%	23%	26%	
		International – 7%	6%	0%	3.8%	
		1 <sup>st</sup> Generation Undergrad (MPH/DrPH) – 15%	Unav.	19%	19%	
		Rural <sup>4</sup> – 20%	Unav.	Unav.	18.5%	
	Ratings on health equity in coursework and inclusiveness in culture items	5.0/7.0	5.7	5.8	5.7	

**Goal 1: Enhance and facilitate student success in public health learning opportunities - Deliver excellent public health learning experiences that draw on the talents of a multi-campus school and reflect the School's core values related to health equity, collaborative effort, and evidence bases for practice.**

Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
1.9 Build an inclusive and diverse ColoradoSPH that is reflective of the communities that public health serves	Graduation rates of underserved students (racial/ethnic) in MPH/MS programs (within 5 years) <sup>5</sup>	MPH>80%	100%	88%	92%	1.8
		MS>80%	n/a	n/a	67%	
	Graduation rates of underserved students (racial/ethnic) in DrPH/PhD programs (within 7 years)	DrPH>80%	n/a	n/a	n/a	
		PhD >80%	n/a	n/a	100%	
	Job placement/ continued education rates of underserved graduates (racial/ethnic) within 12 months of graduation <sup>2</sup>	>90%	100%	95%	100%	
	Scholarships awarded to students from underserved backgrounds	\$200,000	\$55,549	\$105,578	\$109,414	

<sup>1</sup> This excludes students seeking dual doctoral and MPH degrees due to the extended timeline for a doctoral degree. Among students seeking dual master's degrees, no cohort has yet reached the 5 year mark.

<sup>2</sup> Among those for whom information is available. These numbers are reported for those who graduated 12 months previous to the academic year in the column title.

<sup>3</sup> Publications are calculated by calendar year, rather than by academic year. Column "2012-2013" contains information about publications from the 2012 calendar year, and so on.

<sup>4</sup> Unav. indicates that data was not available.

<sup>5</sup> n/a indicates not applicable.

Goal 2: Conduct research and creative activities for maximum impact on population health – Leverage current strengths and facilitate collaboration for new directions and increased faculty and student activity.						
Objective	Measure(s)	Target	2012-2013	2013-2014	2014-2015	Criteria
2.1 Advance knowledge through the dissemination of publications and presentations	Total number of publications <sup>1</sup>	Peer reviewed articles – No Target	511	543	576	3.1
		Books – No Target	4	5	7	
		Book Chapters – No Target	30	15	27	
	Number of publications per capita for faculty	3	3.6	3.8	3.9	3.1
	Percent of publications that are collaborative	30% with faculty from other ColoradoSPH departments	11%	15%	15%	
		30% with faculty from other schools on campus	32%	38%	37%	
		10% with faculty from partner institutions	10%	10%	9%	
		10% with faculty from other universities	61%	62%	62%	
2.2 Maintain a large portfolio of sponsored grant awards across the ColoradoSPH	Total dollar value (direct costs) of all awards to CPSH faculty (administered through the School; includes only CU Anschutz campus)	Total - \$30M direct costs	\$26,837,501	\$26,657,054	\$27,430,225	1.6, 3.1
		NIH awards - \$8M	\$7,974,458	\$7,264,578	\$7,475,282	
		Other federal awards - \$13M	\$13,260,877	\$11,379,657	\$11,709,717	
		Non-federal awards - \$9M	\$5,602,165	\$8,012,819	\$8,245,226	
2.2 Maintain a large portfolio of sponsored grant awards across the ColoradoSPH	Types of awards	30% of awards are community-based research projects	56%	51%	47%	1.6, 3.1, 4.1
		30% of awards include collaboration with public health practitioners	56%	60%	58%	
		30% of awards address health equity and health disparities	60%	64%	61%	

2.3 Increase research efficiency and productivity by leveraging university resources and improving school wide services for administration and support of research, including collaborative grants across partner institutions	Number of awards that include collaboration across partner institutions (UCD, CSU, UNC)	3, with increase of 1 per year	2	3	4	1.6, 3.1
	Institutional expenditures per faculty FTE for research support (not including non-center-affiliated faculty) <sup>2</sup>	\$1,500	\$310,000/76= \$4,079	\$253,000/76= \$3,329	\$307,000/76= \$4,039	
	Percent of ICR returned to departments (annual) <sup>3</sup>	90%	0%	0%	0%	
	Percent of ICR returned to centers (annual) <sup>4</sup>	90%	\$321,000 (70-90%)	\$324,000 (70-90%)	\$305,000 (70-90%)	
2.4 Increase research opportunities and mentoring for junior faculty	Number of faculty development programs to enhance research success	3	0	1	2	3.1
	Percent of assistant professors and instructors who have an identified mentor (CU only)	100%	n/a	n/a	100%	

<sup>1</sup>Publications are counted by calendar, rather than academic year. Column "2012-2013" contains information about publications from the 2012 calendar year, and so on.

<sup>2</sup>The totals represent the amount expended on research administration by the School. This does not include any expenditures for research administration provided by Centers or Projects.

<sup>3</sup> Prior to Fiscal Year 2012-2013, 70% of indirect cost funds received by the School were allocated to each department for discretionary purposes. From Fiscal Year 2012-2013 to Fiscal Year 2014-2015, 100% of the funds received were used to fund school-wide research administration. Starting in Fiscal Year 2015-2016, departments will receive 90% of the funds received by the School.

<sup>4</sup> The amount allocated to each center varies per their individual agreement. Starting in Fiscal Year 2015-2016, centers will also receive 90% of the funds received by the School.

Goal 3: Ensure the financial future of the ColoradoSPH in order to sustain and selectively expand programs and services – Focus on current enrollment and research revenue streams and cultivate new opportunities.						
Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
3.1 Maintain the financial resources to achieve the school's mission and vision	State funding	\$2,000,000	\$ 1,637,173	\$ 1,883,436	\$4,148,705	1.6
	Tuition revenue	\$8,000,000	\$ 5,194,672	\$ 6,320,398	\$7,563,772	
	Grant funding	\$30,000,000	\$ 26,837,501	\$26,657,054	\$27,430,225	
	Fundraising	\$1,500,000	\$880,330	\$ 1,366,000	\$1,509,067	
3.2 Recruit and retain faculty educators and researchers through the provision of resources, support, and recognition	Number of searches conducted	No Target	4	4	3	4.1
	Percent of offers accepted	>75%	75%	75%	100%	
	Median salary support for faculty, by rank, equal to or above 2013 ASPPH median (public and private, non-physicians)	Assistant Professor - \$96,322	\$97,803	\$96,445	\$97,799	
		Associate Professor - \$122,590	\$111,565	\$116,500	\$123,311	
		Professor - \$174,019	\$163,217	\$155,000	\$158,875	
	Percent of faculty promoted to associate professor	85% in 7 years	67%	100%	100%	
	Percent Professors in Tenure track who are tenured	100%	89%	90%	92%	
	Percent Associate Professors in Tenure track who are tenured	70%	56%	50%	50%	
	Retention rate of faculty	>90%	98%	95%	95%	
	Number of faculty participating in leadership programs	5	9	9	8	
	% of faculty participating in faculty development programs	10%	12%	12%	11%	

Goal 4 - Strengthen the School's identity- Strengthen the three partner enterprise in academically meaningful and highly visible ways while maintaining strong, primary links to our three campuses and their resources and facilities						
Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
4.1 Enhance and facilitate collaboration, communication, and participation across partner institutions	Number of all-school faculty meetings	1	1	*	1	
	Number of faculty who participate in all school meetings by campus	100	50	*	75	
	Proportion of faculty participating on school-wide committees, by campus	CU - 20%	43%	50%	45%	
		CSU- 10%	25%	25%	19%	
		UNC- 50%	80%	80%	80%	
	Number of pilot grants provided by school for cross-campus collaborations	3	0	0	0	

\* The annual all-faculty meeting was moved from spring to fall in 2013, so there was no meeting during the 2013-14 academic year.

Goal 5: Build community bonds through training and service – Meet the needs of both the professional public health community and the populations we serve through training and outreach activities that impact population health needs.						
Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
5.1 Maintain strong connections to public health practice through involvement of public health practitioners in the School's activities	Number of clinical, adjunct, affiliate, and secondary appointments	No Target	119	143	187	4.1
	Percent of clinical, adjunct, affiliate, and secondary faculty who work in public health practice	35%	44%	41%	38%	
	Percent of School committees with community and workforce members	25%	33%	33%	33%	
5.2 Increase the reach and effectiveness of training and technical assistance offered by the ColoradoSPH to the public health workforce in Colorado	Number of Public Health Practice trainings per year <sup>2</sup>	50 Total	64	56	25	3.3
		25 in applied research methods	48	42	19	
		15 in health equity, health disparities	23	20	9	
	Number of trainees per year <sup>1,2</sup>	2000 Total	2560	2552	1177	
		1000 in applied research methods	1920	1914	882	
		600 in health equity, health disparities	896	893	411	
	Number of ColoradoSPH primary faculty who deliver seminars, workshops and webinars in community settings	20	31	32	31	
5.3 Faculty will provide service to the field of public health	Number of faculty who are involved in Colorado Public Health Association and/or APHA Sections and Committees	7	5	5	5	3.2



Goal 5: Build community bonds through training and service – Meet the needs of both the professional public health community and the populations we serve through training and outreach activities that impact population health needs.						
Objective	Measure	Target	2012-2013	2013-2014	2014-2015	Criteria
5.3 Faculty will provide service to the field of public health (cont'd)	Number of faculty who hold leadership positions in discipline-related professional associations	20	37	34	34	3.2
	Number of faculty who hold editorial positions for professional and scientific journals	10	23	26	25	
	Number of faculty serving as members of community based organizations, community advisory boards, public health agencies, or as consultants to industry groups on public health issues	30	60	58	60	

<sup>1</sup>Efforts in 2014 were greatly reduced due to a substantial reduction in HRSA funding that year.

<sup>2</sup>Information about trainings and trainees are by calendar year, rather than academic year. Column “2012-2013” contains information about trainings from the 2012 calendar year, and so on.

#### **1.2.D DESCRIPTION OF THE MANNER IN WHICH THE SELF-STUDY DOCUMENT WAS DEVELOPED, INCLUDING EFFECTIVE OPPORTUNITIES FOR INPUT BY IMPORTANT SCHOOL CONSTITUENTS, INCLUDING INSTITUTIONAL OFFICERS, ADMINISTRATIVE STAFF, FACULTY, STUDENTS, ALUMNI AND REPRESENTATIVES OF THE PUBLIC HEALTH COMMUNITY**

The self-study process has been directed by the Associate Dean for Academic Affairs, L. Crane. It was initiated in 2013 with a full review and revision of the competencies for all educational programs, conducted by the Education and Curriculum Committee of the School over an 18-month period. A strategic planning process, on a university designated timeline, commenced early in 2013 under the direction of Associate Dean for Strategic Planning and Development, J. Albino. The resulting strategic plan, finalized in August 2013, informed the identification of goals, objectives, and measures for the School's evaluation plan. The writing of sections of the self-study was delegated to those most knowledgeable about each area to be addressed.

The primary authors of the self-study are listed below:

David Goff, Dean  
Lori A. Crane, Associate Dean for Academic Affairs  
Judith Albino, Associate Dean for Strategic Planning and Development (former)  
Tim Byers, Associate Dean for Public Health Practice (former)  
Spero Manson, Associate Dean for Research  
Dana Dabelea, Associate Dean for Faculty (former)  
Jan Gascoigne, Associate Dean for Student Affairs  
Mary Dinger, Campus Director, University of Northern Colorado  
Lorann Stallones, Campus Director, Colorado State University  
Anthony Airhart, Associate Dean for Administration and Finance  
Richard Lindrooth, Past President of Faculty Senate  
Chloe Bennion, Program Evaluation Coordinator  
Olivia Jolly, Faculty Director of Practice-Based Learning  
Christopher Harris, Enrollment Marketing and Communications Specialist  
Carolyn DiGuseppi, General Preventive Medicine and Public Health Residency Director  
Roxana Witter, Occupational Medicine Residency Director  
Bettina-Martine Warden, Faculty Affairs Program Director  
Tonya Ewers, Director of Communications and Alumni Relations  
Kevin Young, Director of Human Resources

Reviewers for each section of the self-study were selected based on their knowledge of operations in each area. Two faculty members reviewed the compiled self-study in its entirety and provided feedback. The resulting draft report was also made available to stakeholders, including community partners (Colorado Department of Public Health and Environment, Caring for Colorado Foundation, Colorado Health Foundation, Colorado Trust, North Colorado Health Alliance, ColoradoSPH Advisory Board members), students, and faculty

at the three partner campuses for review and comment. Three community stakeholders provided substantive comments, including Mark Johnson, MD, MPH (Executive Director for Jefferson County Public Health), Jane Viste (Community Advisory Board member for the CSU campus and former Public Information Officer for the Larimer County Department of Health and Environment), and Vincent Atchity, PhD (UNC Advisory Committee Member and Chief Operating Officer, North Colorado Health Alliance).

Several areas were identified that were addressed during the self-study time period. These included the reinvigoration of our diversity plan, and the institution of new mechanisms for assessing competency attainment in students.

Following completion of the final self-study document, the leadership of the partner universities (provost and vice chancellor for academic affairs, CU Denver/Anschutz; associate vice chancellor for academic affairs and interim dean, Graduate School, CU Denver/Anschutz; vice provost/dean of the Graduate School, CSU; assistant vice president of research/dean of the Graduate School, UNC; dean of the College of Natural and Health Sciences, UNC), the ColoradoSPH dean, and the School's Executive Council, reviewed and approved the final version submitted to CEPH on April 28, 2015.

A notice of the ColoradoSPH re-accreditation, including dates of our site visit, was posted on our website in winter 2015. This notice included a link to submit comments directly to the ColoradoSPH, and contact information to submit comments directly to CEPH. Comments will be accepted through August 28, 2015. The dean's regular e-newsletter to constituencies ("Dean's Communique") included a similar announcement on April 30, 2015, May 29, 2015, June 29, 2015, and July 31, 2015. The announcements can be found in Resource File 1.2.d.

#### **1.2.E ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met.

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#### **STRENGTHS**

The School has extensive evaluation measures in place to assess progress towards goals and objectives, and these goals map to our strategic plan. The evaluation activities incorporate the perspectives of students, alumni, employers, and university leadership. The School has generally met its quantitative targets or is making progress.

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#### **WEAKNESSES**

We could improve our use of evaluation data to inform decision-making.

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#### **PLANS**

We plan to present comprehensive evaluation results to School leadership and faculty on an annual basis, in order to better inform decision-making.

In our strategic planning and self-study processes, we identified several evaluation strategies that could provide additional valuable qualitative information for improving our School. These include the following:

- Peer-evaluations of teaching
  - The associate dean for faculty will work with department chairs to implement peer evaluations by fall 2016
- Greater involvement of student council in evaluation
  - Present evaluation to student council annually, beginning in the 2015-16 academic year
- Faculty survey of satisfaction with support services (grants, administration, etc.)
  - Every two years, beginning in fall 2015
- Improve some aspects of our alumni surveys, including assessing the need for additional questions to address the strengths and weaknesses of our educational programs
  - Improvements implemented in the 2015-16 academic year
- More routine mechanisms for feedback from employers
  - Implement key informant interviews of employers every two years

## 1.3 INSTITUTIONAL ENVIRONMENT

### 1.3.A DESCRIPTION OF THE LEAD INSTITUTION

The University of Colorado Denver/Anschutz (CU Denver/Anschutz), Colorado State University (CSU) and the University of Northern Colorado (UNC) executed a Memorandum of Agreement (MOA) in 2007 to operationalize the School. This MOA was updated in 2015 (Resource File 1.3.a). The agreement includes goals and objectives, identification of the lead institution, rules of the School, accreditation, degree programs, curriculum, matriculation, tuition, record keeping and graduation, details of faculty appointments, promotion and tenure, administration and staff support, research, grant and contract processing, intellectual property, facilities, libraries, capital equipment, budget procedures, marketing, dispute resolution, and termination. Of central importance for protection of students, the MOA requires that any partner wishing to terminate their participation must give written notice to all other parties two years in advance of the requested date.

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#### THE UNIVERSITY OF COLORADO DENVER/ANSCHUTZ MEDICAL CAMPUS

CU Denver/Anschutz, designated in the MOA as the lead institution in the collaboration, is the only academic health center in the state of Colorado. CU Denver/Anschutz currently has two locations: CU Anschutz is located on the Anschutz Medical Campus in Aurora, CO, and CU Denver is located on the Auraria campus in downtown Denver. These two campuses were joined administratively as a single university in 2004. The CU Anschutz Medical Campus is one of the largest new joint academic health sciences and health care delivery campuses in the country.

The Anschutz Medical Campus is located on 217 acres on the former Fitzsimons Army Medical Center site, 8 miles east of downtown Denver. CU Anschutz is home to the CU schools of medicine, dental medicine, pharmacy and pharmaceutical sciences, the college of nursing, the graduate school, and is the primary location of the lead institution for the Colorado School of Public Health. The campus also houses graduate programs in physical therapy and physician assistant training, University of Colorado Hospital, Children's Hospital Colorado, and affiliated institutions and programs. A cluster of health sciences institutions and centers at CU Anschutz include the Barbara Davis Center for Childhood Diabetes, the University of Colorado Cancer Center, and the Henry Kempe National Center for the Prevention and Treatment of Child Abuse and Neglect. In addition, there is an adjacent 160-acre Colorado Science and Technology Park at Fitzsimons that is affiliated with the University. The Veterans Administration is also currently building a hospital on campus.

For more than 100 years, the health sciences campus has been a critically important institution in Colorado, educating scientists and health practitioners who have significantly contributed to improving health. It began as a School of Medicine at the University of Colorado at Boulder in 1883, with two medical students and two teachers. In 1978, the schools of dental medicine, medicine, nursing and pharmacy formed the CU Health Sciences Center. Carrying out its mission of education, research, and service, CU Anschutz has become an important resource not only to metropolitan Denver but also to the entire Rocky Mountain region. CU

Denver/Anschutz is accredited by the Higher Learning Commission and is classified as a Carnegie Doctoral/Research University with very high research activity.

In 2013, CU Denver/Anschutz conferred 4,888 degrees, including 2,184 bachelor's degrees and more graduate degrees (2,704, including first professional degrees) than any other Colorado public institution of higher education. Many of our graduates (71% of 139,131 alumni) remain in Colorado and contribute further to the educated workforce that helps to fuel the economy and quality of life of our state. We have 1,856 tenured or tenure-track faculty members and a similar number of other instructional faculty members. Included among our faculties are 14 members of the National Academies and numerous winners of national and international fellowships and awards.

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### 1.3.A.1 ASSURANCES AND AGREEMENTS

CU Denver/Anschutz, and its partners CSU and UNC, are fully accredited by The Higher Learning Commission: <http://www.ncahlc.org/>. The accreditation status report for each institution is in Resource File 1.3.a.1. In addition, a number of University-wide assurances and agreements are in place to assure the integrity of the academic and research environment. Representative agreements from CU Denver/Anschutz, CSU and UNC are listed below.

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#### ACADEMIC INTEGRITY

##### Academic Integrity

CU Academic Principles, Professional Rights and Responsibilities, and Related Policies  
<https://www.cu.edu/office-academic-affairs/academic-principles-professional-rights-and-responsibilities-and-related>

CSU Academic Integrity Program  
<http://tilt.colostate.edu/integrity/>

UNC Board Policy Manual  
[http://www.unco.edu/trustees/Policy\\_Manual.pdf](http://www.unco.edu/trustees/Policy_Manual.pdf)

UNC Academic Integrity and Honor Code  
<http://www.unco.edu/dos/Conduct/academicIntegrity.html>

##### Student Code of Conduct

CU Denver Student Code of Conduct  
<http://www.ucdenver.edu/life/services/standards/Documents/CU-Denver-CodeofConduct.pdf>

CSU Student Conduct Code  
<http://www.conflictresolution.colostate.edu/conduct-code>

UNC Student Code of Conduct  
<http://www.unco.edu/dos/Conduct/codeofconduct.html>

ColoradoSPH Student Honor and Conduct Code  
[http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Documents/PoliciesHandbooks/CSPH\\_Honor\\_Code.pdf](http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Documents/PoliciesHandbooks/CSPH_Honor_Code.pdf)

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## RESEARCH INTEGRITY

Animal Care and Use Committee	CU: <a href="http://www.ucdenver.edu/academics/research/AboutUs/animal/Pages/index.aspx">http://www.ucdenver.edu/academics/research/AboutUs/animal/Pages/index.aspx</a> CSU: <a href="https://vprnet.research.colostate.edu/RICRO/">https://vprnet.research.colostate.edu/RICRO/</a> UNC: <a href="http://www.unco.edu/research/iacuc/">http://www.unco.edu/research/iacuc/</a>
Environmental Health and Safety	CU: <a href="http://www.ucdenver.edu/academics/research/AboutUs/health-safety/Pages/EnvironmentalHealthSafety.aspx">http://www.ucdenver.edu/academics/research/AboutUs/health-safety/Pages/EnvironmentalHealthSafety.aspx</a> CSU: <a href="http://www.ehs.colostate.edu/">http://www.ehs.colostate.edu/</a> UNC: <a href="http://www.unco.edu/facility/ehs/">http://www.unco.edu/facility/ehs/</a>
Office for Research	CU: <a href="http://www.ucdenver.edu/academics/research/Pages/default.aspx">http://www.ucdenver.edu/academics/research/Pages/default.aspx</a> CSU: <a href="https://vprnet.research.colostate.edu/vpr/">https://vprnet.research.colostate.edu/vpr/</a> UNC: <a href="http://www.unco.edu/research/">http://www.unco.edu/research/</a>
Review of Research Involving Human Subjects	CU: <a href="http://www.ucdenver.edu/academics/research/AboutUs/comirb/Pages/comirb-home.aspx">http://www.ucdenver.edu/academics/research/AboutUs/comirb/Pages/comirb-home.aspx</a> CSU: <a href="http://ricro.colostate.edu/">http://ricro.colostate.edu/</a> UNC: <a href="http://www.unco.edu/osp/ethics/irb/">http://www.unco.edu/osp/ethics/irb/</a>
Scientific Misconduct	CU: <a href="http://www.ucdenver.edu/academics/research/AboutUs/regcomp/researchethics/Pages/Scientific-Misconduct.aspx">http://www.ucdenver.edu/academics/research/AboutUs/regcomp/researchethics/Pages/Scientific-Misconduct.aspx</a> CSU: <a href="http://ricro.colostate.edu/research_mis.htm">http://ricro.colostate.edu/research_mis.htm</a> UNC: <a href="http://www.unco.edu/trustees/University_Regulations.pdf">http://www.unco.edu/trustees/University_Regulations.pdf</a> (Article 8, 3-8-106)

### 1.3.B ONE OR MORE ORGANIZATIONAL CHARTS OF THE UNIVERSITY INDICATING THE SCHOOL'S RELATIONSHIP TO THE OTHER COMPONENTS OF THE INSTITUTION

Organizational charts of the university indicating the School's relationship to the other components can be found in Resource File 1.3.b.

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## LEAD INSTITUTION DESIGNATION

The three collaborating institutions in ColoradoSPH function as equal academic partners. CU Denver/Anschutz assumed the role of lead institution because the consolidated campus has faculty and courses in all five core public health knowledge areas, as well as the largest number of students and faculty engaged in graduate level public health education. The primary collaborative element among the three institutions is the inter-institutional MPH degree. MS, PhD, and DrPH degrees are offered within the School only at the CU Anschutz campus; the MS and PhD are offered in conjunction with the CU Denver/Anschutz Graduate School. CU Anschutz offers an MPH with concentrations in all five core areas, as well as in Maternal & Child Health and Leadership and Public Health Practice. Global Public Health options can be added to most concentrations. UNC offers an MPH concentration in Community Health Education with options to add Global Public Health or Healthy Aging. CSU offers a concentration in Epidemiology, and five concentrations constructed as interdisciplinary programs across five colleges: Animals, People, and the Environment; Global Health and Health Disparities; Health Communication; Physical Activity and Healthy Lifestyle; and Public Health Nutrition. ColoradoSPH also offers the Doctor of Public Health (DrPH) degree in Community and Behavioral Health, Environmental and Occupational Health, and Epidemiology at CU Anschutz. In addition, ColoradoSPH offers the Certificate in Public Health Sciences at both CU Anschutz and UNC and the Certificate in Global Health at CU Anschutz.

As the lead institution, CU Denver/Anschutz is the administrative center of the collaboration. This includes managing all student services such as admissions, matriculation, course registration, financial aid, tuition collection, grade reporting, transcripts, and diplomas. Staff on the CU Anschutz campus also manage tuition flow between the campuses, development of inter-institution processes, external relations, fundraising, accreditation processes, faculty appointments to the School, and all other school-wide administrative functions. Most of these functions are conducted in collaboration with staff at the partnering institutions.

### 1.3.C DESCRIPTION OF THE SCHOOL'S LEVEL OF AUTONOMY AND AUTHORITY

- BUDGETARY AUTHORITY AND DECISIONS RELATING TO RESOURCE ALLOCATION
- LINES OF ACCOUNTABILITY, INCLUDING ACCESS TO HIGHER-LEVEL UNIVERSITY OFFICIALS
- PERSONNEL RECRUITMENT, SELECTION AND ADVANCEMENT, INCLUDING FACULTY AND STAFF
- ACADEMIC STANDARDS AND POLICIES, INCLUDING ESTABLISHMENT AND OVERSIGHT OF CURRICULA

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#### 1.3.C.1 BUDGETARY AUTHORITY AND DECISIONS RELATING TO RESOURCE ALLOCATION

At CU Anschutz, the School leadership participates in the annual budget planning for campus and School-specific allocations on equal terms with the other schools. Decisions regarding budgeting, resource allocation, and expenditures of the School are made within University of Colorado policies with the same degree of autonomy and responsibility accorded the other CU Anschutz schools.

Given the three institution organizational structure, CSU and UNC are responsible for their own financial affairs and possess the authority to control budget and resource allocation within their respective institutions. The School conducts a collaborative budgeting process beginning in late fall prior to the beginning of the next



fiscal year in July. This coincides with the CU Denver/Anschutz finance office budgeting calendar and the budgeting calendars at CSU and UNC, as all three collaborating partners operate on the same fiscal year basis as the state of Colorado.

The School allocates resources among the partner institutions based upon a tuition-sharing model (section 1.6.c.1). The tuition-sharing formula is reviewed and approved by the Inter-Institutional Steering Committee, comprised of senior academic officers of the partnering universities (see Section 1.4.b for details), in the context of expected tuition revenues and expenses. Expense forecasts are supplied by each partner institution to the associate dean for administration and finance and are reviewed by the dean, Executive Council, and Inter-Institutional Steering Committee. Budget analysis is conducted on an on-going basis to assess ability to meet forecasted needs and variances in actual expenditures and revenues. CSU and UNC support salaries, benefits and operational costs of School activities on their campuses from their resources. They do this by funding those items with intent to receive a tuition revenue transfer from the School to help meet those costs. Tuition earned during a semester transfers to CSU and UNC 8- 10 weeks after the start of each term. The tuition-sharing model, as well as the School cost allocation method, were reviewed by the partners in 2015.

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### 1.3.C.2 LINES OF ACCOUNTABILITY

#### ACCOUNTABILITY AND ACADEMIC UNITS

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The University of Colorado president reports to the elected CU Board of Regents. The president's office includes an eight member executive staff: senior vice president and chief of staff; vice president and academic affairs officer; vice president for advancement; vice president for government relations; vice president for university communications; vice president for university counsel and secretary of the board of regents; vice president for employee and information services; and vice president/chief financial officer. Each campus of the University of Colorado is led by a chancellor (CU Anschutz: Donald M. Elliman, Jr.; CU Denver: Jerry Wartgow; CU Colorado Springs: Pamela Shockley-Zalabak, PhD; CU Boulder: Phillip P. DeStefano, PhD). The CU Denver/Anschutz senior administration includes the provost (Roderick Nairn, PhD) and vice chancellors as shown in the Denver-Anschutz governance organizational chart in Resource File 1.3.b. The dean of the Colorado School of Public Health reports to Provost Nairn, as do the deans of all health sciences schools at CU Anschutz.

The CSU system is led by the chancellor, Anthony Frank, DVM, PhD, with presidents of the Fort Collins (Anthony Frank, DVM, PhD) and Pueblo (Lesley DiMare, PhD) campuses, who report to the appointed CSU Board of Governors. The Fort Collins campus is the primary organizational unit that collaborates with the School. Oversight of the collaborative MPH program at CSU has been delegated to the dean of the Graduate School, Jodie Hanzlik, PhD. The collaborative program is organized across four colleges at CSU: the Colleges of Veterinary Medicine & Biological Sciences, Health & Human Sciences, Liberal Arts, and Natural Sciences. In 2013, the program was approved as a special academic unit at CSU and is governed by an academic oversight committee comprised of the dean of the CSU Graduate School and the deans of the four CSU colleges listed above. The director of the MPH program at CSU is Dr. Lorann Stallones, PhD, MPH. Dr. Stallones has a primary appointment in the CSU College of Natural Sciences, Department of Psychology. She also holds a professor appointment in ColoradoSPH and reports directly to the dean (David Goff). Dr. Stallones serves as a member

of the dean's office and on the School's Executive Council and communicates regularly by phone, in person and via email with the ColoradoSPH dean on issues at CSU.

The UNC system is headed by President Kay Norton, JD, who reports to the appointed UNC Board of Trustees. Her office includes the senior officers for finance, academic affairs, university relations and general counsel. The UNC dean of the College of Natural and Health Sciences (Ellen Gregg, PhD) oversees the departments of Chemistry and Biochemistry, Earth and Atmospheric Sciences, and Physics and Astronomy. Dean Gregg also oversees the schools of Biological Sciences, Mathematical Sciences, Sport and Exercise Science, Nursing, and Human Sciences. The director of the MPH program at UNC is Mary Dinger, PhD. Dr. Dinger reports to the director of the UNC School of Human Sciences, who reports to the dean of the College of Natural and Health Sciences. The dean of the College of Natural and Health Sciences reports to the UNC provost and senior vice president (Robbyn Wacker) and, for graduate programs, the dean of the Graduate School (Linda Black). The MPH director (Mary Dinger) oversees the MPH program and faculty for the concentration in community health education, and also has an appointment in ColoradoSPH. She serves as a member of the dean's office and on the School's Executive Council and communicates regularly by phone, in person and via email with the ColoradoSPH dean on issues at UNC.

The partnering institutions established an Inter-Institutional Steering Committee (IISC) for ColoradoSPH to facilitate communication regarding the status and activities of the School. The IISC is comprised of the chancellor (CU Anschutz), president (CSU, UNC) and provosts (CU Denver/Anschutz, CSU, UNC). The ColoradoSPH dean reports to the IISC at least twice a year and communicates regularly with other academic offices of the partnering institutions.

ColoradoSPH has an active faculty senate that participates in shared governance and includes faculty representatives from all partnering institutions. The ColoradoSPH Faculty Senate sends representatives to the CU Anschutz Faculty Assembly comprised of elected representatives from each of the campus schools/colleges, the Health Sciences Library, and the chairs of the faculty governing organizations in each of the schools/colleges. The CU Anschutz Faculty Assembly sends representatives to the CU System Faculty Council.

The president of the School's Faculty Senate is a member of the CU Anschutz Faculty Assembly. Any voting faculty member of the School's faculty may be elected to the Faculty Senate, and may serve (regardless of institution) on the Faculty Assembly. Both CSU and UNC also have active faculty assemblies (CSU Faculty Council, UNC Faculty Senate), and ColoradoSPH faculty at those institutions may serve there as elected.

The MS and PhD programs of ColoradoSPH are governed by the UC Denver/Anschutz Medical Campus Graduate School. The Graduate School is headed by the acting dean (Terry Potter, PhD), with the new dean, David Engelke, PhD to start October 1, 2015, and advised by a graduate council of faculty representing schools and programs. ColoradoSPH has two members on the council. In addition, each school has a graduate executive committee, with membership including the directors of each academic program (in the ColoradoSPH, this includes Biostatistics, Epidemiology, Health Services Research), who advise the dean of the Graduate School and report to the associate dean for academic affairs of ColoradoSPH. This committee serves as a liaison between the graduate faculty of the degree program and the Graduate School. The Graduate Council and the ColoradoSPH Graduate Executive Committee assist with reviews of proposed and existing

individual programs, among other responsibilities. These and other functions of the consolidated Graduate School are described in the Graduate School Rules and Policies (<http://www.ucdenver.edu/academics/colleges/Graduate-School/Documents/pdf/Consolidated-Rules.pdf>).

#### PREROGATIVES EXTENDED TO ACADEMIC UNITS REGARDING NAMES, TITLES AND INTERNAL ORGANIZATION

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The School has wide latitude within the overall lead university structure to organize departments, centers, units, and programs that are consistent with other schools in the University of Colorado. Senior administrative review and approval are required for departments and centers at the university level. The faculty and School administration have the same rights, responsibilities, and privileges given to other university faculty and deans.

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#### 1.3.C.3 PERSONNEL RECRUITMENT, SELECTION AND ADVANCEMENT

At CU Anschutz, School department chairs are responsible for recruitment, evaluation and retention of faculty and department staff, with final approval of the dean. Search committees consisting of department or center faculty are advisory to department chairs for faculty recruitment. Promotion and tenure dossiers are reviewed by department and School-level promotion and tenure committees of faculty. At CSU and UNC, department chairs of units in these university partners are responsible for recruitment, evaluation and retention of faculty and department staff, with final approval of the appropriate dean. For recruitment of faculty expected to be appointed within the ColoradoSPH, School department chairs are typically involved in the search process. Final decisions to grant an appointment or to recognize a promotion in the School for these and other partner faculty are made following a process that includes review by the relevant School department chair; School Appointments, Promotions, and Tenure Committee; and dean, as per the MOA:

Faculty with primary appointments at CSU or UNC who desire an additional appointment in the School will apply through the respective School Department to the School's Appointments and Promotions (A&P) Committee, established cooperatively by the Parties and published in the Rules of the School. Faculty will be appointed by the School after review and approval by the School committee and following the School's criteria, policies and procedures. Faculty hired through the CSU System or UNC System will not be tenure eligible at CU Denver.

Faculty with their primary appointment at CSU or UNC will be evaluated for promotion and/or tenure under the institutional policies applicable at the time. Educational, research or service activities that faculty have undertaken on behalf of the School will be appropriately considered during the evaluation process. Following promotion at CSU or UNC, a request for promotion may be made to the School, through the appropriate department of the School. The School's Appointments and Promotion committee will also review the faculty member's request for promotion under the concurrent faculty title held in the School, following the School's criteria, policies and procedures. Recommendations to restrict concurrent faculty titles are expected to be uncommon and will require discussion and resolution between the Dean of the School and the Senior Academic Officer at the home institution. Such review by the School shall not in any manner supplant or restrict the independent hiring and promotion and tenure obligations of CSU or of UNC.

The associate dean for administration and finance oversees all central staff recruitment, evaluation and retention, with input from relevant faculty and staff. The University of Colorado supports an online system for position posting for both faculty and staff openings ([www.jobsatcu.com](http://www.jobsatcu.com)). See section 4.2.c for further detail on faculty evaluation and advancement. See Resource File 4.2.a(1) for the ColoradoSPH faculty handbook, and Resource File 1.3.c for personnel handbooks from all three partner institutions.

CU Anschutz/Denver Officers and University Staff Policies and Procedures can be found at:

<https://www.cu.edu/employee-services/officer-and-university-staff-handbook>

CU Anschutz/Denver Classified Staff Policies and Procedures can be found at:

<https://www.colorado.gov/dhr>

[https://www.colorado.gov/pacific/sites/default/files/State%20of%20Colorado%20EE%20Handbook\\_1.pdf](https://www.colorado.gov/pacific/sites/default/files/State%20of%20Colorado%20EE%20Handbook_1.pdf)

UNC Faculty/Administrative Exempt Staff Policies and Procedures can be found at:

[http://www.unco.edu/hr/Policies\\_Procedures\\_FE.htm](http://www.unco.edu/hr/Policies_Procedures_FE.htm)

UNC State Classified Staff Policies and Procedures can be found at:

[http://www.unco.edu/hr/Policies\\_Procedures\\_Classified.htm](http://www.unco.edu/hr/Policies_Procedures_Classified.htm)

CSU Administrative Professionals policies can be found at:

<http://www.hrs.colostate.edu/pdfs/hrs-manual-2-faculty-admin-pro.pdf>

CSU State Classified Staff Policies can be found at:

<http://www.hrs.colostate.edu/pdfs/hrs-manual-3-state-classified.pdf>

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#### 1.3.C.4 ACADEMIC STANDARDS AND POLICIES, INCLUDING ESTABLISHMENT AND OVERSIGHT OF CURRICULA

School faculty and administration, with approval by vote of the faculty, jointly develop School-specific bylaws, policies, procedures and guidelines. Faculty, staff and students have easy access to this information on the School's website (<http://publichealth.ucdenver.edu>) (See Resource File 1.3.c.4). All such policies must adhere to the CU Board of Regents laws, policies, and administrative policy statements that set minimum standards that the School may extend if desired.

The ColoradoSPH Faculty Senate is the final authority for academic standards and policies, which are generally developed by the Education and Curriculum Committee (ECC), a committee of the Faculty Senate. The ECC must approve all new courses, changes in course requirements for degree plans, changes in program competencies, and other factors that affect quality of education. For major changes such as creation of new programs, after ECC approval, approval of the Faculty Senate and Executive Council of ColoradoSPH are

required. In the event of the creation of a new degree (aside from a concentration within an established degree such as the MPH), all new degrees must be approved by the Board of Regents and the Colorado Commission on Higher Education. The ECC has voting representatives from each department and from both CSU and UNC (7 total). Additionally, there is a non-voting community partner representative (currently filled by an affiliated faculty member from Denver Health) and a non-voting student representative. The associate dean for academic affairs and associate dean for student affairs attend all meetings, but are non-voting members. The meetings are open to all faculty, students, or community members who choose to attend.

While the ECC sets academic policies and standards, the associate dean for academic affairs is generally tasked with oversight and enforcement of policies and standards.

### **1.3.D UNIVERSITY PROCESSES THAT ARE DIFFERENT FOR COLORADO SPH**

The three-university collaborative nature of the School requires processes that differ from other schools at CU Denver/Anschutz. The CU Denver/Anschutz registrar, bursar, and financial aid offices process UNC- and CSU-based student registration, billing and financial aid. The CU Denver/Anschutz registrar's office also manages all course enrollments across the three campuses, coordinates grading and generates a single transcript for all MPH students. The CU Denver/Anschutz registrars also coordinated the design and production of the joint MPH and DrPH diploma, signed by the authorities at all three institutions (Resource File 1.3.d). All of these administrative offices have been extremely flexible during the first years of operation as they developed new systems and processes specifically for ColoradoSPH.

The CU Denver/Anschutz Registrar's Office programs the course registration system to open on a single date that accommodates the opening dates across the three campuses. This task takes a significant amount of coordination between all three offices. The program evaluation coordinator sends weekly enrollment reports to UNC and CSU so they can monitor registration for their courses.

The CU Denver/Anschutz Bursar's Office sets up specific billing protocols coded to each primary campus so the different campus-specific fees calculate accurately for each ColoradoSPH student. Then, the financial officers at each university reconcile tuition and fee assessments through agreed upon processes now in place. The CU Denver/Anschutz Financial Aid Office manages all School aid provided to CU Anschutz, UNC and CSU students.

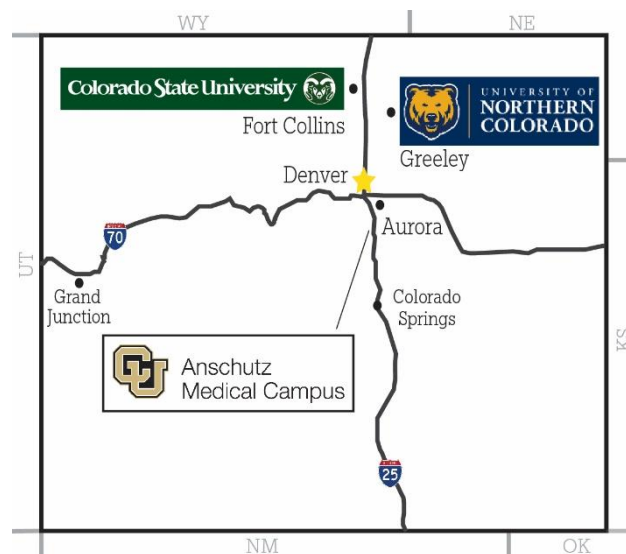
Processes for faculty recruitment, evaluation, promotion and tenure differ for each of the partner faculties, as described in section 4.2.

### 1.3.E DESCRIPTIONS OF ALL PARTICIPATING INSTITUTIONS AND DELINEATION OF THEIR RELATIONSHIPS TO THE SCHOOL

The map displays the locations of the campuses of CU Denver/Anschutz, CSU and UNC. Each is located in the Front Range corridor of Colorado. The CU Denver/Anschutz campuses are approximately one hour by car from Fort Collins and Greeley, which are about 30 minutes apart from each other.

#### 1.3.E.1 COLORADO STATE UNIVERSITY

CSU, located in Fort Collins, Colorado, is situated on nearly 5,000 acres of land, including the main campus, a foothills campus, an agricultural campus, and a mountain campus. The university has 4,600 acres for research centers, cooperative extension offices, and Colorado State Forest Service stations. CSU is approximately 70 miles north of CU Anschutz and 30 miles from UNC in Greeley, CO.



Colorado State University is a comprehensive public research university with programs in science and technology, professions and the liberal arts. The university is one of 106 land grant institutions nationwide, and one of only 151 schools designated as a Carnegie Doctoral/Research University-Extensive. CSU offers more than 130 graduate degree programs across eight colleges: Agricultural Sciences, Health & Human Sciences, Business, Engineering, Liberal Arts, Warner College of Natural Resources, Natural Sciences, and Veterinary Medicine and Biomedical Sciences. In addition to the college offerings, four interdisciplinary university-wide graduate degree programs are offered. CSU is a full academic partner in ColoradoSPH and offers the collaborative MPH degree. The program offers a concentration in the core area of epidemiology and inter-disciplinary concentrations in five areas: Animals, People & the Environment; Global Health & Health Disparities; Health Communication; Physical Activity and Healthy Lifestyles; and Public Health Nutrition.

CSU has a director, an associate director, an assistant director and an academic advisor that administer the MPH program in Fort Collins. The institutional registrar, bursar and controller interface closely with ColoradoSPH and CU Anschutz administration. Program faculty members are on all standing School committees, and CSU faculty are voting members of the ColoradoSPH Faculty Senate and Executive Council.

CSU is also a partner in the research and service activities of the School. The MAP ERC, housed in the School and funded by the Centers for Disease Control and Prevention (CDC) and the National Institute for Occupational Safety and Health (NIOSH), is a large, collaborative research effort between CU Anschutz and CSU. The Colorado Integrated Food Safety Center of Excellence is another collaborative research program between CU Anschutz and CSU (as well as the Colorado Department of Public Health and Environment) with joint leadership by CU Anschutz and CSU ColoradoSPH faculty.

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### 1.3.E.2 UNIVERSITY OF NORTHERN COLORADO

UNC is a comprehensive baccalaureate and specialized graduate research university located in Greeley, Colorado. It is approximately 55 miles north of CU Anschutz and 30 miles from CSU in Fort Collins, CO. Established in 1889 as the State Normal School of Colorado, UNC has a strong background in educating teachers. The school's name was changed to the University of Northern Colorado in 1970 to recognize its expanded undergraduate and graduate degree programs. The University offers more than 100 undergraduate programs and 100 graduate programs in six colleges.

UNC hosts a diverse student body representing all 50 states and 40 countries for a total enrollment of approximately 12,000 students. UNC is a Carnegie Research Intensive Institution with graduate programs that emphasize advanced scholarship and professional career advancement.

UNC is a full academic partner in ColoradoSPH and offers the collaborative MPH degree with a concentration in Community Health Education with two options that can be added to this concentration: Global Health and Healthy Aging. The MPH program director administers the program at UNC. The MPH program director and the administrative assistant at UNC work closely with the UNC registrar, bursar and controller to interface with ColoradoSPH. UNC program faculty members are on all standing School committees, and UNC faculty are voting members of the ColoradoSPH Faculty Senate and Executive Council.

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### 1.3.E.3 COLLABORATION BETWEEN PARTNER INSTITUTIONS

The three partner institutions in the collaborative school work together to establish and maintain a strong and consistent student experience. For curricular issues, excellence is maintained through the centralized Education and Curriculum Committee, which includes membership from across the partner institutions, and with the oversight of the associate dean for academic affairs. Course evaluations are reviewed to assess student satisfaction, and where necessary, discussions take place across institutions to address issues. An example of this is the core course HSMP 6601. There is no faculty member with expertise to teach this course at the CSU campus. We have experimented with various solutions and are now offering a “flipped classroom” course through the CU Anschutz campus with in-person extensions at CSU. Another example is the implementation of the MPH epidemiology concentration, which operates at both CSU and CU Anschutz. Curriculum changes were proposed by CSU faculty, and then CU Anschutz faculty reviewed and concurred with the changes. The changes were implemented with collaboration between faculty members at the two campuses. For practice-based learning, we have a school-wide faculty director for practice-based learning and centralized resources for connecting students with opportunities. The director meets regularly with staff and faculty across partner institutions several times a year to coordinate and maintain consistency across campuses. For student governance, each campus has its own student council, and there is a school-wide student leadership council comprised of the president and vice-president of each of the home campus councils.

Our model combines collaboration and independence with oversight. We respect the professionalism and autonomy of each partner institution, while implementing mechanisms to detect problems and collaborate on solutions. For example, student advising is handled differently across departments, programs and institutions, sometimes with a centralized model (e.g., a single advisor for a program or programs) and sometimes with a de-centralized model (e.g., each student is assigned to a faculty member and all faculty



members participate in advising). Each model has its strengths and weaknesses. When problems arise, we work collaboratively for a solution.

### **1.3.F WRITTEN AGREEMENT BETWEEN THE PARTICIPATING INSTITUTIONS**

CU Denver/Anschutz, CSU and UNC executed a Memorandum of Agreement (MOA) in 2007 to operationalize the School. This MOA was updated in 2015 (Resource File 1.3.a). The agreement includes goals and objectives, identification of the lead institution, rules of the School, accreditation, degree programs, curriculum, matriculation, tuition, record keeping and graduation, details of faculty appointments, promotion and tenure, administration and staff support, research, grant and contract processing, intellectual property, facilities, libraries, capital equipment, budget procedures, marketing, dispute resolution, and termination. Of central importance for protection of students, the MOA requires that any partner wishing to terminate their participation must give written notice to all other parties two years in advance of the requested date.

### **1.3.G ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met.

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#### **STRENGTHS**

The lead institution and both partner institutions are accredited universities. Written agreements provide guidance to all partners. An effective Inter-Institutional Steering Committee and governance structure is in place. A joint budgetary planning process is in place. Each institution is firmly committed to the ColoradoSPH collaboration.

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#### **WEAKNESSES**

Significant administrative resources are required to manage the complex procedural requirements across the institutions. It can be challenging to develop and communicate a unified and consistent School identity and message given the complexity of the collaboration and different priorities and strengths of the partners. Balancing the School brand identity in the context of the outstanding and well-recognized brands of the partnering institutions continues to be an evolving process.

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#### **PLANS**

We continue to seek ways to streamline administrative processes and to develop and communicate the identity of the collaborative School in the context of the partnering institutions. We also continually strive to improve student processes, such as enrollment, student life, practice-based learning, and career services, across campuses. We have updated our brand identity (wordmark) to enhance its use across all partners. The process will be fully implemented by December 2015.



## 1.4 ORGANIZATION AND ADMINISTRATION

ColoradoSPH is organized with five academic departments (Biostatistics and Informatics; Community and Behavioral Health; Environmental and Occupational Health; Epidemiology; and Health Systems, Management, and Policy) that have oversight of academic programs and faculty activities. Faculty members at all partner institutions have primary academic appointments in the School through one of these five departments. The MPH program is organized centrally across all five departments with admissions, student services, general advising, transcripts, and course scheduling. Academic advising for the MPH program is provided in each of the departments by faculty, the program directors and campus directors. Most operations of the School (human resources, communications and external relations, financial tracking, development, and other staff support services) are also centralized. In 2014, we began to decentralize our approach to research administration to place administrative staff in closer proximity to the faculty, subject to joint supervision of the associate dean for research and the department chairs. Final sign-off on grants and contracts remains a central responsibility.

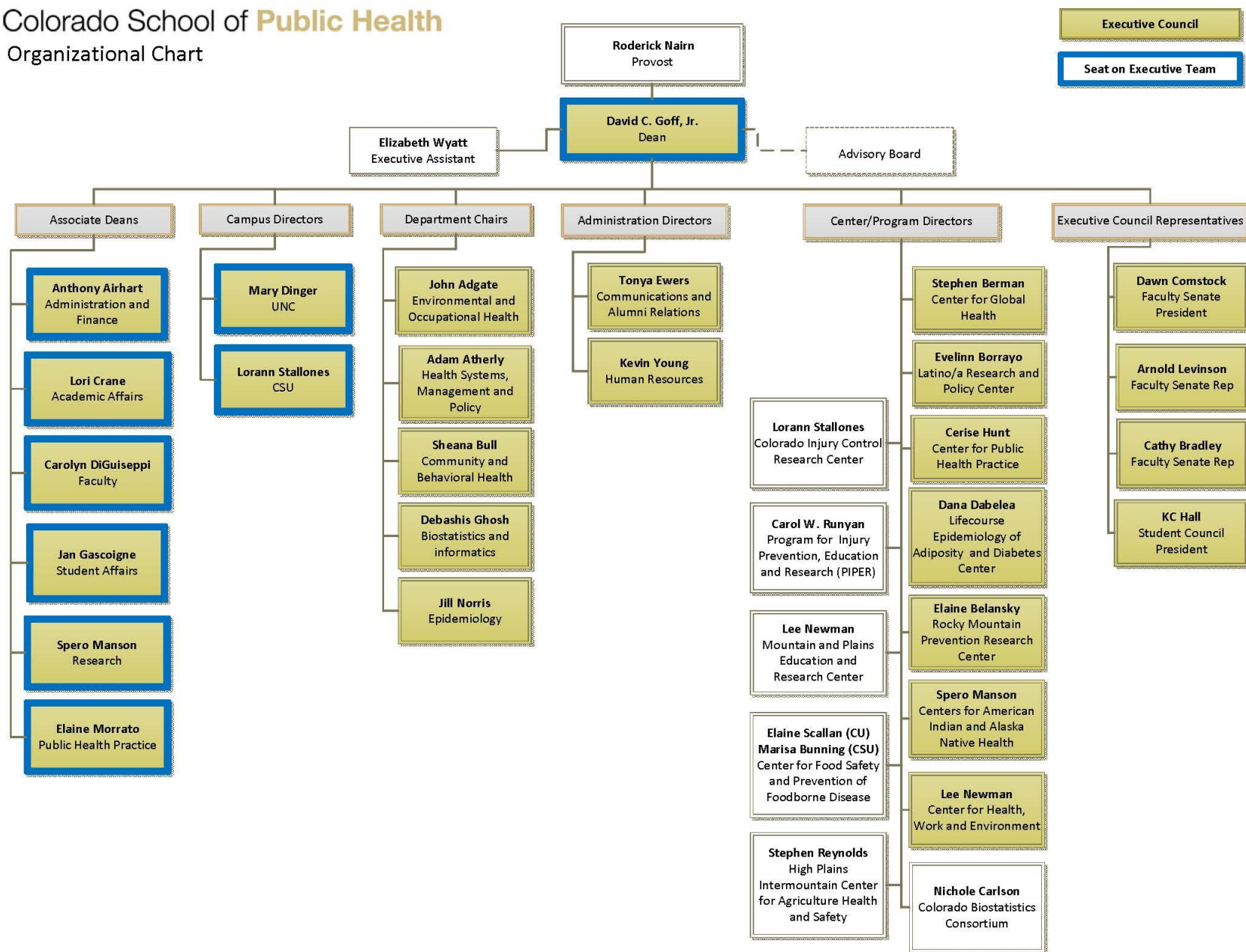
To facilitate inter-disciplinary approaches to education, research, and service, the School encourages cross-departmental and cross-school secondary faculty appointments. In addition, there are 11 school-wide centers providing focus in specific research and educational areas. Two of these centers are managed jointly by faculty from both CU Anschutz and CSU (Mountain and Plains Education and Research Center and the Center for Food Safety and Prevention of Foodborne Disease). The High Plains Intermountain Center for Agricultural Health and Safety (HICAHS) and the Colorado Injury Control Research Center are located at CSU. The remaining seven centers are located primarily at CU Anschutz (Centers for American Indian and Alaska Native Health, Center for Global Health, Center for Public Health Practice, Center for Health, Work and Environment, Latino/a Research and Policy Center, Lifecourse Epidemiology of Adiposity and Diabetes Center, and Rocky Mountain Prevention Research Center), though most include faculty from multiple schools and colleges at CU Denver/Anschutz, CSU, and UNC. In addition to these 11 centers, the School has an interdisciplinary Program for Injury Prevention, Education, and Research that may soon achieve center status, and the Colorado Biostatistics Consortium, which provides statistical consultation across the CU Anschutz Medical Campus, with affiliates, and with community partners. Furthermore, CU Denver/Anschutz has a Comprehensive Cancer Center (CCC) designation from the National Cancer Institute, and an NIH Clinical Translational Sciences Award (CTSA) grant, incorporated into the Colorado Clinical Translational Science Institute (CCTSI), which fosters collaborative, bench-to-community research development and infrastructure across multiple Colorado institutions. Faculty members of ColoradoSPH are instrumental in the leadership of the CCC, including the Cancer Prevention and Control Program and the Biostatistics Shared Resource, as well as the quantitative and community translation activities of the CCTSI.

#### **1.4.A ONE OR MORE ORGANIZATIONAL CHARTS SHOWING THE ADMINISTRATIVE ORGANIZATION OF THE SCHOOL INDICATING RELATIONSHIPS AMONG ITS COMPONENT OFFICES, DEPARTMENTS, DIVISIONS OR OTHER ADMINISTRATIVE UNITS**

The following organizational chart shows the structure of the School. Other charts of ColoradoSPH's general administration, the Offices of Academic, Student, and Faculty Affairs, and the MPH program at CSU and UNC are in Resource File 1.4.a.

# Colorado School of Public Health

## Organizational Chart



## 1.4.B DESCRIPTION OF THE ROLES AND RESPONSIBILITIES OF MAJOR UNITS

### THE INTER-INSTITUTIONAL STEERING COMMITTEE (IISC)

The partnering institutions established an Inter-Institutional Steering Committee (IISC) for ColoradoSPH to facilitate communication regarding the status and activities of the School. In practice, the IISC is comprised of the chancellor (CU Anschutz), presidents (CSU, UNC) and provosts (CU Denver/Anschutz, CSU, UNC). The ColoradoSPH dean reports to the IISC at least twice a year and also communicates regularly with other academic offices of the partnering institutions, as per the MOA:

For the oversight and review of this agreement, the designated representatives are the CU Denver Provost/Vice Chancellor or designee, the CSU Provost/Executive Vice President or designee and the UNC Provost or designee. The designated representatives will constitute the Inter-Institutional Steering Committee (IISC). The IISC is charged with meeting at least once annually to review the agreement and annual budget and evaluate the coordination and success of the program for each Party.

Minutes for the Inter-Institutional Steering Committee are available in Resource File 1.5.a.

### COLORADOSPH DEAN'S ADVISORY BOARD

The Dean's Advisory Board is a group of trusted volunteers who serve in an advisory capacity concerning matters related to governance and board development, strategic planning and implementation, financial planning and implementation, development and external affairs, and other matters such as special projects that may be identified by the dean. The Advisory Board consists of at least 10 members who are invited to serve at the discretion of the dean and with input from board members. Members are asked to serve three year terms, which may be renewable.

Board members' responsibilities include the following:

- Advise and counsel the dean about strategic and fiscal issues facing the School
- Assist the dean and the Office of Development staff with individual, corporate, and foundation donor prospects and, where appropriate, provide introductions for the dean or development staff and/or accompany them on donor visits
- Serve as advocates and representatives for the School
- Serve as leaders on task forces and committees as requested to address School's strategic and tactical activities
- Provide feedback on School's marketing and communication materials.

Current members include:

- Donna Boucher (Chair) – Retired Founder and Past President of Bates Group Inc. and Board Member of the Iliff School of Theology and Samaritan Institute
- Claudio Abreu, PhD, MBA, MS – Senior Vice President of Regional IT Operations at Kaiser Permanente
- Luis Colón – CEO and Managing Partner at Xcelente Global
- Bob Daugherty, MD, PhD – Emeritus Dean at University of Nevada School of Medicine
- Nate Easley, PhD – Executive Director of the Denver Scholarship Foundation
- Jim Garcia, MPA – Founder and Executive Director of Clinica Tepeyac and Board Member of the Colorado Health Foundation and the Denver Board of Environmental Health

- Sara Kraeski, JD, MBA – Chief Financial Officer of Davis Graham & Stubbs LLP
- William Lindsay, CLU, CEBS, RPA – **PRESIDENT OF LOCKTON COMPANIES' BENEFITS GROUP IN DENVER** and Past-Chair of the Denver Metro Chamber of Commerce
- Linda Price Campbell – Former Trustee for Fort Lewis College
- Daniel Prinster – Vice President of Business Development for St. Mary's Hospital and Former Colorado State Legislator
- Paul Schauer – Regent Emeritus at Colorado University and Former Colorado State Legislator
- Jerry Shelton, RPh – Retired Executive from Merck Pharmaceuticals

Minutes for the Advisory Board are available in Resource File 1.5.a.

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## OFFICE OF THE DEAN

The officers and staff of the Office of the Dean work to ensure the School's excellence in education, research, and service. The office oversees all matters relating to the administration of the School including academic programs, faculty, staff, students, facilities, resources, budgets, alumni, fundraising, and relationships with the partner institutions and community.

- **DEAN** (David Goff) - Chief executive officer of the School with overall responsibility for the mission, goals and objectives. He represents ColoradoSPH in all matters, and enforces its bylaws, policies, procedures and regulations. He reports to the provost as do all other CU Denver/Anschutz school or college deans. In addition, the dean reports to the IISC, described above, to facilitate collaborative success. The dean, together with the School's Executive Council and Faculty Senate, oversee policy development and implementation, and all aspects of ColoradoSPH's administration in order to achieve its mission and goals.
- **ASSOCIATE DEAN FOR ACADEMIC AFFAIRS** (Lori Crane) - Oversees all educational programs and the development of new programs. Oversees the School's accreditation and other reporting processes. Liaison with other schools. Implements policies such as grievance, academic integrity, leave of absence, transfer of credits. Coordinates dual degree programs. Oversees scholarship awards. Oversees evaluation of the School.
- **ASSOCIATE DEAN FOR FACULTY** (Carolyn DiGuseppi) - Reviews all faculty appointments, promotion and tenure processes, academic policies and procedures, and other faculty affairs. Promotes faculty development and ensures diversity and alignment with all university policies and procedures.
- **ASSOCIATE DEAN FOR RESEARCH** (Spero Manson) - Advises on the School's research activities including collaborations with centers and researchers outside of ColoradoSPH; advises on investments in strategic research initiatives; contributes to faculty development activities related to research; and identifies opportunities for research and funding. Facilitates ethical, community-based research for the benefit of communities and researchers. Serves as liaison with senior research administrators at all partners.

- **ASSOCIATE DEAN FOR PUBLIC HEALTH PRACTICE** (Elaine Morrato) - Develops relationships with community public health organizations and other stakeholders; oversees continuing education programs for the workforce and a resource center for project development for community agencies; and oversees training and other services to the workforce in Colorado and the region.
- **ASSOCIATE DEAN FOR ADMINISTRATION AND FINANCE** (Anthony Airhart) - Assists the Dean in meeting the education, research, and service goals of ColoradoSPH by organizing, coordinating and supervising operational functions of the School (IT, space, etc.). Oversees all financial matters related to the School and its partners and compliance with university, state, and federal regulations.
- **ASSOCIATE DEAN FOR STUDENT AFFAIRS** (Jan Gascoigne) - Oversees the student affairs portfolios for all ColoradoSPH campuses including enrollment management, student development and success, practice-based learning and career and employer relations. Oversees student life from application for admission through graduation; ensures student participation in governance; evaluates effectiveness of the student experience. Promotes, coordinates, and provides leadership on University diversity objectives; acts as liaison on diversity issues with the University; and works to recruit a more diverse student body.
- **DIRECTOR OF COMMUNICATIONS AND ALUMNI RELATIONS** (Tonya Ewers) - Oversees all external-facing communications of the School, including alumni relations. Represents ColoradoSPH at professional meetings with partner universities and community organizations; acts as liaison to governmental affairs, communications, branding, media relations, and the alumni offices of the university and other external groups and individuals. Assists with strategic planning, marketing, and student recruitment. Participates in efforts to raise operating funds and endowments for the School and its activities.
- **DIRECTOR OF HUMAN RESOURCES** (Kevin Young) - Provides leadership and management for all aspects of human resources, including employee development and relations, onboarding, promotions and retention. Promotes, coordinates, and provides leadership on university diversity objectives; acts as liaison on diversity issues with the University; and works to recruit a more diverse employee group.

The directors of the public health programs at the partnering universities are considered to be part of the Office of the Dean. Each is recommended by the faculty and administration of their respective programs and approved by the Dean.

- **DIRECTOR OF THE MPH PROGRAM AT COLORADO STATE UNIVERSITY** (Lorann Stallones) - The director at CSU reports to the dean of the Graduate School (Jodie Hanzlik) at CSU and to the ColoradoSPH dean. The director is responsible for overseeing all aspects of the education program at CSU and serves on the School's Executive Council.
- **DIRECTOR OF THE MPH AT THE UNIVERSITY OF NORTHERN COLORADO** (Mary Dinger) – The director at UNC reports to the director of the School of Human Sciences (Jamie Erskine) at UNC and to

the ColoradoSPH dean. The director is responsible for overseeing all aspects of the education program at UNC and serves on the School's Executive Council.

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## ACADEMIC DEPARTMENTS

There are five academic departments: Biostatistics and Informatics; Community and Behavioral Health; Environmental and Occupational Health; Epidemiology; and Health Systems, Management, and Policy. These units carry out the education, research, and service missions of the School under the direction of the department chairs. Department chairs report to the ColoradoSPH dean.

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## EDUCATIONAL PROGRAMS

The educational programs offered by ColoradoSPH include both professional and academic degree programs. There are 15 MPH concentrations: Animals, People, and the Environment (CSU); Applied Biostatistics\* (CU); Community and Behavioral Health\* (CU); Community Health Education\* (UNC); Environmental and Occupational Health\* (CU); Epidemiology\* (CU and CSU); Global Health and Health Disparities (CSU); Health Communication (CSU); Health Services Research (CU); Health Systems, Management, and Policy\* (CU); Health Systems and Management (CU); Leadership and Public Health Practice (CU); Maternal and Child Health\* (CU); Physical Activity and Active Lifestyles (CSU); and Public Health Nutrition (CSU). The programs indicated by an "\*" also offer a global public health specialization option. The Community Health Education concentration offers an option in Healthy Aging. Three programs – Biostatistics, Epidemiology, and Health Services Research – offer PhD and MS degrees, and three programs offer the DrPH degree – Community and Behavioral Health, Environmental and Occupational Health, and Epidemiology (at CU Anschutz). In addition, there are five dual degree programs: Doctor of Medicine/MPH, Doctor of Nursing Practice/MPH, Doctor of Veterinary Medicine/MPH, Master of Public Administration/MPH, and Master of Urban and Regional Planning/MPH. The School is in the process of implementing two dual Master of Social Work/MPH programs -- one at CSU and one in conjunction with the University of Denver, a private university. We are also currently exploring the possibility of other dual degree programs, including Doctor of Pharmacy/MPH, Doctor of Dental Surgery/MPH, and Juris Doctor/MPH. All degrees and concentrations reside in one of the five departments or within the MPH program at one of the partner campuses. Immediate oversight and operations of the programs are by the department or partner campus program.

The MOA specifies that the School will deliver collaborative MPH and DrPH programs while delivering MS and PhD programs independently:

It is the intent of the Parties to jointly provide a graduate professional public health degree program at the masters (Masters of Public Health, MPH) and doctoral (Doctor of Public Health, DrPH) level.

The Parties agree to jointly deliver and review the professional degree curriculum within the parameters specified by the CEPH to maintain accreditation. The School curriculum committee, as established by the Rules of the School with representation from all Parties, will conduct primary review and approval of all curriculum matters. Curriculum organization and content approved by the School will also be submitted to the appropriate curriculum committee(s) at CSU and UNC for review and approval in a coordinated fashion. Parties agree that all School curricular review and decisions will be conducted collaboratively for degree offerings, programs, and courses to be offered through



the School and the Parties will not institute or alter School-approved curriculum independently. Each Party will inform the other of changes to related programs or courses that may interact with or influence School offerings (e.g. elective courses in a related field or program). Should curriculum disagreements arise that are not resolved by the relevant committees, the procedures described in "dispute resolution" will be followed.

A minimum of three doctoral degrees in the core areas of public health are required for accreditation by CEPH. The Lead institution agrees to develop, administer and deliver these degree programs (and any related MS degrees) for the School, in compliance with the CU Denver Graduate School rules then in effect. Parties agree that existing MS and PhD degree programs at CSU and UNC will not be considered as part of the School. Parties agree that any MS or PhD programs offered at CSU or UNC and related to the five core disciplines of public health must have names that are distinct from any MS or PhD degree program offered by the School, following the rules of CEPH.

Any public health-related MS or PhD degree program, once approved by the relevant curriculum committee at CSU or UNC, may be proposed by CSU or UNC for inclusion in the School's curriculum. The proposed degree program must be approved by the School, pursuant to the Rules of the School then in force.

Nothing in this section is intended to restrict interaction between the Parties for MS or PhD programs, faculty or students under existing agreements for transfer of credits, cross listing of courses, or other procedures.

#### **1.4.C DESCRIPTION OF THE MANNER IN WHICH INTERDISCIPLINARY COORDINATION, COOPERATION AND COLLABORATION OCCUR AND SUPPORT PUBLIC HEALTH LEARNING, RESEARCH AND SERVICE**

Support for interdisciplinary collaboration extends from the university level at all three partner institutions to individual faculty members and students in ColoradoSPH programs. The CU Denver/Anschutz strategic plan explicitly outlines the university's commitment to increasing interdisciplinary programs, "...recognizing that the traditional boundaries of knowledge and of practice are fading and, in some cases, disappearing." Likewise, both CSU and UNC have strategic planning documents that demonstrate a strong supportive environment for developing and sustaining interdisciplinary programs.

The collaborative nature of ColoradoSPH exemplifies its commitment to interdisciplinary initiatives and programs. The School brings together faculties from three universities and seven schools and colleges; state and local public health departments; hospitals and community clinics; non-profit public health organizations; and many other community stakeholders. ColoradoSPH currently has 11 interdisciplinary centers that conduct educational and research programs, and provide service to communities. These centers are described in Section 3.1. Many of the School's faculty members hold joint appointments with other departments or in other schools. The School's research program includes multiple collaborations across disciplines within ColoradoSPH and with other schools and universities. Such collaborative efforts are supported by CU Anschutz, which has indirect cost sharing policies to facilitate research across departments and schools. The School provides service based on a broad array of disciplines to international, national and local academic organizations, public health agencies, and communities.



Students in the School's educational programs are required to take courses across departments, and are encouraged to take elective courses from other departments. Two of the MPH concentrations at the CU Anschutz campus are intentionally cross-disciplinary, with core faculty across departments: Maternal and Child Health, and Leadership and Public Health Practice. At CSU, four of the MPH concentrations are cross-disciplinary: Animals, People, and the Environment; Global Health and Health Disparities; Health Communication; and Physical Activity and Healthy Lifestyles. In addition, the Global Public Health options incorporate inter-disciplinary teaching into all the applicable concentrations at CU Anschutz and UNC. The Global Public Health Plus option in Community Health Education at UNC also represents a cross-campus collaborative program in that the global health courses are offered at CU Anschutz and CSU. Dual degrees with other schools (DNP/MPH, DVM/MPH, MD/MPH, MPA/MPH, and MURP/MPH) provide another level of cross-disciplinary training. It is common within courses for faculty across department to participate through guest lectures.

In addition, students at ColoradoSPH can enroll in an Inter-Professional Education (IPED) elective. This interdisciplinary course enrolls students from all schools at CU Anschutz, including medicine, nursing, dentistry, pharmacy and public health. Students are formed into interdisciplinary teams where they solve cases related to patient safety, quality of care and other topics. The year-long course is for credit and is open to all students, but particularly encouraged for students interested in healthcare management. This past semester, five students from ColoradoSPH enrolled in the initial offering of the course to public health students.

Specific collaborative initiatives in research, service and workforce development are described in Criterion 3.

#### **1.4.D ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met.

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#### **STRENGTHS**

The organizational structure of the collaborative School is consistent with the differing academic structures of the three partners and successfully integrates them into a functional school that builds on the strengths of three outstanding universities. ColoradoSPH is intentionally cross-disciplinary in educational programs, research, and service.

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#### **WEAKNESSES**

The complexities and multiple lines of authority require significant attention to communication. There are unaddressed opportunities to take our partnership to a new level, through such efforts as cross-campus pilot research grants and cross-campus team teaching, that we plan to address as resources can be identified.

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#### **PLANS**

We continue to work to enhance communications and planning with all relevant administrative units involved in the School. Members of the dean's office will continue to make regular trips to partner campuses to enhance communication and collaboration. We are working to identify opportunities to offer concentrations

that take advantage of expertise across campuses such as the Global Public Health Plus option in Community Health Education and the Leadership and Public Health Practice concentration.

## 1.5 GOVERNANCE

### 1.5.A LIST OF THE SCHOOL'S STANDING AND IMPORTANT AD HOC COMMITTEES, WITH A STATEMENT OF CHARGE, COMPOSITION AND CURRENT MEMBERSHIP FOR EACH

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#### EXECUTIVE TEAM

The School's Executive Team is comprised of the dean, associate deans, the campus directors of the programs at CSU and UNC, and the director of communications and alumni relations. This group meets twice monthly and as needed to resolve issues and develop needed policies and procedures. Current members: David Goff, Anthony Airhart, Lori Crane, Carolyn DiGuseppi, Mary Dinger, Tonya Ewers, Jan Gascoigne, Spero Manson, Elaine Morrato, and Lorann Stallones.

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#### COMMITTEE OF CHAIRS

This committee is comprised of the five academic department chairs. It meets once a month with the School's Executive Team and once a month with the dean to resolve issues and to develop policies and procedures with a special emphasis on issues affecting the ability of departments to pursue their missions and other issues that are common across departments. Current members: John Adgate (EOH), Adam Atherly (HSMP), Sheana Bull (CBH), Debashis Ghosh (BIOS), and Jill Norris (EPI).

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#### EXECUTIVE COUNCIL

The council is composed of the dean, associate deans, campus directors, department chairs, center directors, two at-large faculty members, president of the Faculty Senate, the director of human resources, the director of communications and alumni relations, and a representative from the ColoradoSPH Student Council. The Executive Council meets monthly to review and approve policy actions brought to it by the Dean and others. The Executive Council serves as the major management and policy body for routine actions and deliberations. Responsibility for major changes to bylaws, educational directions, strategic planning and other matters are shared with the Faculty Senate. Current members: John Adgate, Anthony Airhart, Adam Atherly, Elaine Belansky, Stephen Berman, Evelinn Borrayo, Cathy Bradley, Sheana Bull, Dawn Comstock, Lori Crane, Dana Dabelea, Carolyn DiGuseppi, Mary Dinger, Tonya Ewers, Jan Gascoigne, David Goff, Debashis Ghosh, Cerise Hunt, Arnold Levinson, Richard Lindrooth, Spero Manson, Elaine Morrato, Lee Newman, Jill Norris, Lorann Stallones, KC Hall, and Kevin Young. Minutes are available in Resource File 1.5.a.

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#### FACULTY SENATE

The Faculty Senate is a representative body of the full faculty. The number of members for each department is determined proportional to the size of the faculty in each department. Members are elected by the faculty in each department. The membership includes faculty from all campuses. Current membership totals 16 faculty and one student representative. Faculty Senate officers include president, president elect, past

president, and secretary. Officers are elected through a vote of the whole faculty of the School. Per the bylaws (Article 1, Section D.2: Faculty Governance): “The Faculty Senate provides representation for the faculty of the school, including those based at the lead and partner institutions.” The Senate approves all bylaw changes prior to a full faculty vote and brings faculty issues and concerns to the administration as needed. Current membership of the Faculty Senate includes: Anna Baron, Danielle Brittain, Mark Brown, Dawn Comstock, John Hokanson, Elizabeth Juarez-Colunga, Carol Kaufman, Robin Kimbrough-Melton, John Kittelson, Rich Lindrooth, Molly Phares (student, non-voting), Jini Puma, Betsy Risendal, Elaine Scallan, Berrin Serdar, Craig Trumbo, and Brandie Wagner. Minutes are available in Resource File 1.5.a.

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## STANDING COMMITTEES

There are six standing committees. Committee chairpersons are appointed by the dean in consultation with faculty senate officers. Specific requirements are identified in the ColoradoSPH Bylaws. Committee members are appointed through consultation between the dean, committee chair, and department chairs. Standing committees must meet at least once annually. All meetings are open to the members of the voting faculty. All partners in the collaboration are represented on all standing committees, with the exception of the Space and Facilities Committee that is focused on CU Anschutz.

**ADMISSIONS COMMITTEES:** The Admissions Committee has full authority to develop policies and procedures for admissions to the programs of the School, to select members of the entering professional degree programs, and other duties as specified in the Admissions Committee Policies and Procedures. Each department has its own admissions committee that reviews the applications and makes recommendations. The School-level Admissions Committee meets before and after the admission cycles to review policies and procedures and calibrate standards across departments. The Committee is responsible for defining the minimum set of prerequisites required for all applicants. Each department has at least one member of its department committee attend the Committee meetings. Current members: John Adgate, Adam Atherly, Elaine Belansky, Kendra Bigsby, Sheana Bull, Dawn Comstock, Tessa Crume, Mary Dinger, Gary Grunwald, John Hokanson, Katerina Kechris, Kathy Kennedy, Jenn Leiferman, Sharon Lutz, and Elaine Scallan. Admissions Committee Policies and Procedures, as well as committee reports, can be found in Resource File 1.5.a.

**APPOINTMENTS, PROMOTION AND TENURE (APT) COMMITTEES:** The Department Appointments, Promotion and Tenure Committees (DAPTCOs) perform the first level of review of promotion and tenure dossiers for promotion or tenure at the professor, associate professor and assistant professor ranks. The DAPTCO recommendations are passed on to department chairs and the School APT Committee. The APT Committee is responsible for reviewing nominations for appointment, reappointment, promotion or tenure at the professor, associate professor and assistant professor ranks; for making recommendations to the dean to support or reject such nomination; for reviewing and updating the APT policies and criteria; and for assuring compliance with policies and procedures of the collaboration universities. These committees review faculty appointment regardless of track and tenure status. For adjunct, affiliate and secondary appointments, the committees review all appointments made at the associate professor level or higher, while for assistant professor and instructor levels, department chairs may make appointments into these tracks if the dean concurs. Members: Gary Grunwald (chair), Frank Accurso, Anna Baron, Tim Byers, Samantha MaWhinney,

Douglas Novins, Stephen Reynolds, Cornelis Rietmeijer, and Nancy Whitesell. The associate dean for faculty (Carolyn DiGuseppi) attends the School-level APT committee meetings as a non-voting member.

**EDUCATION AND CURRICULUM COMMITTEE:** The Education and Curriculum Committee (ECC) is responsible for the overall design, implementation, evaluation and ongoing development of curriculum for the School. Each department and partner campus is represented. Additional non-voting members include one student and one community member. Current members: Marci Sontag (chair), Alison Bauer, Arthur Davidson (community), Mary Dinger, Ryan Gan (student), Gary Grunwald, Yvonne Kellar-Guenther, Elaine Morrato, and Howard Ramsdell. The associate deans for academic affairs (Lori Crane) and student affairs (Jan Gascoigne) attend as non-voting members. The meeting is open and other program directors frequently attend with non-voting status. The ECC minutes are available in Resource File 1.5.a.

**RESEARCH COMMITTEE:** The Research Committee provides oversight, review and recommendations about the development, progress and priorities for research conducted by the faculty and students of the School in an advisory capacity to the associate dean for research. Each department and partner campus is represented. Current members: Alison Bauer, Jan Beals, Allie Buti (student), Bill Farland, Deb Glueck, Jan Lowery, Stephen Reynolds, Betsy Risendal, Angela Sauaia, Teresa Sharp, and Erin Wright (student).

**SPACE AND FACILITIES COMMITTEE:** The Space and Facilities Committee advises and provides information to the dean on the allocation and/or reallocation of space in the School at CU Anschutz; proposes policies on space allocation and reallocation; reviews space usage and projects; and assists in the development of future space requirements. The committee is composed of faculty from each department, representatives from research centers, and selected staff members. Responsibility for decisions regarding allocation of space and facilities at CSU and UNC resides with the home departments and schools at those universities. Although no examples have arisen to date, if needs are not addressed through discussion between the relevant campus director and senior academic officer, the dean of the School is empowered to bring these issues to the attention of the IISC for discussion and resolution. Current members: Anthony Airhart, John Adgate, Adam Atherly, Sheana Bull, Debashis Ghosh (chair), Jill Norris, Jini Puma, and Kevin Young.

**SCHOLARSHIPS AND AWARDS COMMITTEE:** The Scholarships and Awards Committee is comprised of two subcommittees that develop procedures for awarding scholarships and awards to students, faculty and staff, review applications for scholarships and awards, select award recipients, and initiate publicity regarding scholarships and awards. The two subcommittees' compositions are broadly representative of the School, including members from each of the partner campuses. Current Scholarships Subcommittee members: Lori Crane (chair), Madiha Abdel-Maksoud, Robin Kimbrough-Melton, Beth McManus, Teresa Sharp, and Lauren Shomaker. Current Awards Subcommittee members: Olivia Jolly (chair), Elizabeth Brooks, Jan Gascoigne, Teresa Sharp and Kevin Young, as well as students Laura Smith and Kiley Floren. Meeting minutes for the Scholarship Subcommittee and the Awards Subcommittee are available in Resource File 1.5.a.

**STUDENT COUNCIL:** The Student Council is comprised of students from all programs in the School. It functions to support students pursuing an education and career in the field of public health; foster a sense of community among students; promote growth of the School; support and increase diversity and promote acceptance within the student body; establish and promote the honor code; and establish and maintain strong relationships with communities. As described in more detail in section 1.5.e below, there is a Student Council chapter on each of our three campuses. The president and vice president from these chapters comprise a Student Leadership Council. The ColoradoSPH Student Council has representatives on appropriate ColoradoSPH and CU Anschutz-wide committees. Student Council meeting minutes can be found in Resource File 1.5.a.

**ADMINISTRATIVE STAFF:** The School's administrative staff meets monthly to discuss and address concerns, procedures and policies related to staff responsibilities and work life. The goal of the meetings is to promote unity, cooperation and mutual respect among all members of ColoradoSPH staff. These meetings provide a forum for exchange and dissemination of information and provide a forum to advocate for staff with senior administration. Agendas are available in Resource File 1.5.a.

## **1.5.B DESCRIPTION OF THE SCHOOL'S GOVERNANCE, COMMITTEE STRUCTURE AND PROCESSES**

### **1.5.B.1 GENERAL SCHOOL POLICY DEVELOPMENT**

ColoradoSPH is administered and governed in accordance with the School bylaws and the laws and policies of the CU Board of Regents. Faculty and administration have shared responsibility for the development, review and approval of new School policy and work through any relevant committee(s). These committees include the Executive Team, the Committee of Chairs, the Executive Council, the Faculty Senate, standing committees, and the Student Council. Each of these committees may initiate any bylaw, policy or procedural changes deemed necessary. All proposed new bylaws, policies, and procedures are then reviewed by other relevant committees and units, followed by review by the Executive Council for approval. Any changes to the bylaws are also reviewed and approved by the Faculty Senate and the voting faculty. The partnering institutions have agreed with this approach as per the MOA:

The Parties will maintain a set of operating rules to establish the parameters of the collaboration and directing the School to coordinate faculty, administration, staff and students. These rules (or bylaws) will define the School's governance, administrative and committee structure, types of faculty appointments, promotion and tenure guidelines, and necessary policies, processes and procedures that will govern the operation of the School, consistent with Rules and Policies of CU Denver.

### **1.5.B.2 PLANNING**

School-wide planning is a broad-based, interactive process involving all relevant committees, departments, and faculty. It is led by the dean and Executive Team. The School updated its Strategic Plan in 2013 for the period 2013-18 (Resource File 1.1). The current plan is aligned with the plans of the three partnering universities insofar as possible. Members of the School's leadership are assigned responsibility for assuring progress on strategic priorities, and progress is monitored by the Executive Council. For example, in January-

June 2015, a portion of each Executive Council meeting was devoted to updates on achievement of goals and objectives in the strategic plan.

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### **1.5.B.3 BUDGET AND RESOURCE ALLOCATION**

The individual partner institutions in the collaborative School are responsible for their own financial affairs and possess the authority to control budget and resource allocation. Each is a separate university under a separate governing board, responsible for academic and budgetary decisions regarding their faculty, staff, and students. As a collaborative school, budgets for each institution's faculty time, staff time and other expenses (proportionate to estimated student credit hours at each partner) are shared in preparation of the upcoming budget cycle. Estimates of tuition revenues and necessary expenses are discussed with the School's associate dean for administration and finance to be in alignment with operational needs. The annual budget (with 2-year forward projections) is developed with additional input from the department chairs and is reviewed and approved by the Faculty Senate and Executive Council. The Executive Council oversees budget management on a quarterly basis; these results are also communicated to the Faculty Senate. In addition, the Inter-Institutional Steering Committee reviews School budget planning and performance at least twice a year. The updated 2015 Memorandum of Agreement between the partners describes the School's current operating policies (Resource File 1.3.f). Section 1.6.c.1 (Tuition Model 2) describes these findings and explains the process in greater detail.

The ColoradoSPH budgets resources based on forecasted tuition revenue and university support. The School projects that all future program expenses across the three campuses can be reimbursed with shared tuition revenue and university support. Reserve funds acquired for development of the School are sufficient to cover shortfalls in revenue through FY16. If there is a reduction in state or university support in the future, the School will respond in the short-term to bring budgeted expenses in line with budgeted revenues.

Beginning in FY16, the lead institution budget is department-based. Annually, the associate dean for administration and finance, the chairs, and the deans develop the budget and discuss it with the Executive Council, which reviews and approves the budget. Department chairs are responsible for all administrative and financial aspects of department operations, including faculty and departmental administrative staff hiring and salary setting recommendations, and are an integral part of budget development, review, and approval. CU Anschutz non-research staff salaries are set in conjunction with university policy by the associate dean for administration and finance in collaboration with the director of human resources. Research staff salaries are set by individual investigators in alignment with each university's policies.

Section 1.6 describes the School's budgeting process in more detail.

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### **1.5.B.4 STUDENT RECRUITMENT, ADMISSION AND AWARD OF DEGREES**

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#### **ADMISSIONS**

As per the MOA:

Admissions will be organized, managed and staffed by the School as will the student enrollment process. The specific organization and admissions committee structures shall be defined by the

Parties and published in the Rules of the School. Such determinations may be modified from time to time by written agreement of the Parties. The Parties agree to actively participate in all decisions and agreements regarding student admissions, retention, and graduation policies.

As per the bylaws, the School has a central admissions committee that reports to the Faculty Senate. The central committee is supported by the department admissions committees that review applications and make admission decisions. This central committee sets the minimum admission requirements for the professional and academic degrees. The central admissions committee, comprised of representatives of each admission committee reviews all admissions processes before and after the admission cycle and makes recommendations on all processes. The associate dean for student affairs is an ex-officio member of this committee.

The admissions process is a hybrid model, wherein the enrollment marketing, recruitment, and application management processes are managed at the central School administration level in the Office of Student Affairs, and the application evaluation and admission decision processes are managed at the department and campus level (CSU and UNC). Applications for the MPH, DrPH, MS, and PhD are collected through the School of Public Health Common Application System (SOPHAS). The general preventive medicine and public health residency and occupational medicine residency program applications are collected through the Electronic Residency Application System (ERAS) of the Association of American Medical Colleges. The certificate applications are collected through SOPHAS Express. Once received, applications are reviewed by faculty members in the department to which each prospective student applied. The department chair and faculty decide offers of admission. The official offer of admission letter is sent from the Office of Student Affairs, and the matriculation process happens at the central administrative level. In addition, the lead institution (CU Anschutz), with input and coordination from the partners, handles final admission, determination of financial aid, and matriculation into the registration system. Admissions procedures are discussed in Section 4.3.

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## RECRUITMENT

Enrollment marketing and student recruitment are part of the portfolio of the Office of Student Affairs. The associate dean for student affairs, the enrollment marketing and communications specialist, the manager of strategic enrollment management and the student service specialist meet with each department chair and designated faculty leaders to develop enrollment marketing plans for the School and specific programs. The final proposed plan is shared with the department chairs. Student recruitment is discussed in Section 4.3.

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## AWARD OF DEGREES

As per the MOA, the collaborative MPH and DrPH degrees are awarded jointly by all three institutions, with a single diploma (Resource File 1.3.d).

CU Denver, on behalf of the School, will confer the professional degrees (MPH, DrPH) with each Party's signature and seal shown on the diploma. Final recommendations about students' eligibility for graduation will be made by the Dean of the School or designee, who will forward the recommendation as specified in the policies of the CU Board of Regents, CSU Board of Governors and UNC Board of Trustees. The Parties agree to maintain a process to assure collaboration on the



recommendation made by the Dean. Each Party may list all graduates of the School in their respective graduation publications.

The university presidents and chairs of the respective governing boards (CU Board of Regents, CSU Board of Governors, UNC Board of Trustees) all sign the diploma, as does the chancellor of CU Anschutz (as lead) and the dean of ColoradoSPH. All graduating students are invited to participate in the School convocation in May. Students at the partner campuses are also invited to ceremonies at their respective home campus. ColoradoSPH faculty members hood PhD and DrPH students in the ColoradoSPH and Graduate School Convocations as relevant. The MS and PhD degrees are awarded from the CU Denver/Anschutz Graduate School. Faculty advisors review applications for graduation to assure students have satisfactorily met all requirements prior to School administrative review. The associate dean for academic affairs and her staff conduct a final review of qualifications to graduate and officially instruct the Registrar of CU Denver/Anschutz to award degrees.

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### **1.5.B.5 FACULTY RECRUITMENT, RETENTION, PROMOTION AND TENURE**

As per the MOA, faculty recruitment, retention, promotion and tenure are subject to the policies and procedures of the institution where the primary faculty appointment is based.

Each Party will be solely responsible for employment of its own respective faculty and employees, including, but not limited to salary, benefits, providing workers' compensation coverage, liability insurance (as required) and the withholding of all appropriate taxes, as specified by the appropriate manuals(s), rules and policies governing employees of each Party.

CU Denver/Anschutz, CSU, and UNC are equal opportunity and affirmative action employers.

At the lead institution (CU), the responsibility of the initial recommendation for appointment, continuation, promotion, or award of tenure of faculty members rests with department chairs. Department chairs and individual faculty members are advised by the five Departmental Appointments, Promotions and Tenure Committees (DAPTCOs). Within ColoradoSPH the ultimate responsibility for recommending faculty members for appointment, continuation, promotion, or award of tenure rests with the dean. The dean is advised by department chairs and the school-wide Appointments, Promotions and Tenure Committee (APT Committee). Within ColoradoSPH, the responsibility for development and implementation of policies and procedures rests with the associate dean for faculty. These policies and procedures are included in the Faculty Handbook, which is available to all faculty members online at

<http://www.ucdenver.edu/academics/colleges/PublicHealth/Faculty/facultyaffairs/Pages/default.aspx>

The department chair (or center director, or PI responsible for hiring), in consultation with departmental faculty, are responsible for determining the need for a new faculty member. Faculty hiring at the research associate, instructor, and senior instructor level, as well as hiring of non-tenure track assistant professors, requires the approval of the department chair. Hiring decisions in the tenure track, regardless of rank, require approval of both the department chair and the dean before a search can be opened. The department chair is responsible for authorizing a search committee and appointing members, following the CU Denver/Anschutz search committee guidelines. Search committees are established to include faculty from each partner institution and community stakeholders, as appropriate. Candidates are reviewed by the chairs of the

departmental and school-wide appointments, promotions, and tenure committees for appropriate track and rank. Following this determination, the chair and the dean extend an appointment that is subject to final approval by the chancellor.

In accordance with the MOA, campus directors at the partner universities are responsible for proposing faculty appointments within ColoradoSPH. These proposed appointments and subsequent promotions are reviewed by department chairs (together with departmental faculty), the APT committee, and the dean. Given that these faculty members have undergone review by their home universities, the School process is typically supportive and expedited. As per the MOA:

Faculty with primary appointments at CSU or UNC who desire an additional appointment in the School will apply through the respective School Department to the School's Appointments and Promotions (A&P) Committee, established cooperatively by the Parties and published in the Rules of the School. Faculty will be appointed by the School after review and approval by the School committee and following the School's criteria, policies and procedures. Faculty hired through the CSU System or UNC System will not be tenure eligible at CU Denver.

Newly hired faculty members at the lead institution are assigned a mentor by the department chair. Mentors meet regularly with the faculty members assigned to them. This is intended to help keep them on course for the mid-term review, which comes at about halfway to the point of their promotion review year. At CSU and UNC, the responsibility for mentorship of new faculty is delegated to the home department and school within those institutions.

University of Colorado policy dictates that there is faculty review at two levels, the "unit" or department, and the school. DAPTCO (comprised of departmental faculty) reviews promotions to associate and full professor, and conducts mid-course evaluations for assistant professors. The school-wide APT committee (comprised of school faculty) reviews all new hires at the associate and full professor level and votes on all promotions to associate or full professor, and all tenure decisions, before forwarding them to the dean, for review at the university level.

Faculty members at CSU and UNC have their primary appointments, promotion and tenure decisions conducted at their home institutions. Partner faculty members are usually awarded the ColoradoSPH rank consistent with their primary appointment at their home institution. Based on the MOA between the institutions, faculty participation in school-wide activities will be considered during their annual and promotion reviews. In addition, though partner faculty members are officially appointed in the CU-system as adjunct faculty, the MOA allows these faculty to drop the annotation of "adjunct" in official correspondence (e.g., letters, manuscripts, curriculum vitae, etc.). As per the MOA:

Faculty with their primary appointment at CSU or UNC will be evaluated for promotion and/or tenure under the institutional policies applicable at the time. Educational, research or service activities that faculty have undertaken on behalf of the School will be appropriately considered during the evaluation process. Following promotion at CSU or UNC, a request for promotion may be made to the School, through the appropriate department of the School. The School's Appointments and Promotion committee will also review the faculty member's request for promotion under the concurrent faculty title held in the School, following the School's criteria, policies and procedures.

Recommendations to restrict concurrent faculty titles are expected to be uncommon and will require discussion and resolution between the Dean of the School and the Senior Academic Officer at the home institution. Such review by the School shall not in any manner supplant or restrict the independent hiring and promotion and tenure obligations of CSU or of UNC.

In the case of non-reappointment of a faculty member, CU Denver/Anschutz policies are followed ([http://www.ucdenver.edu/faculty\\_staff/employees/policies/Policies%20Library/OAA/NonreappointmentNoticeStandards.pdf](http://www.ucdenver.edu/faculty_staff/employees/policies/Policies%20Library/OAA/NonreappointmentNoticeStandards.pdf)). Similar action is available at CSU (<http://facultycouncil.colostate.edu/faculty-manual-section-e/#E.6>) and UNC ([http://www.unco.edu/trustees/Policy\\_Manual.pdf](http://www.unco.edu/trustees/Policy_Manual.pdf)) (section 2-3-1301 (1)). If a candidate so requests, the dean or chancellor, or his/her representative, shall, in a confidential conversation, advise the candidate of the reasons that contributed either to a recommendation not to reappoint or grant tenure, or to the reversal at any level of a department's recommendation to promote or award tenure.

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### **1.5.B.6 ACADEMIC STANDARDS AND POLICIES**

The faculty have final authority over the curriculum and degree requirements, and determining when students have attained the requirements. The faculty, through the Education and Curriculum Committee (ECC) and the Faculty Senate, have set standards for coursework, assuring that it represents rigorous, graduate-level work, and set the minimum GPA. Proposed new curriculum and curriculum changes originate at the department or program level and are reviewed and approved by the ECC. The ECC is also charged with assuring that core coursework and competencies are consistent across partner institutions. Faculty members assign course grades, as well as determine whether students pass their culminating experiences.

The associate dean for academic affairs and program evaluation coordinator monitor the progress of students, including maintenance of a 3.0 GPA, probationary procedures, and continuing enrollment. The Graduate School performs the same monitoring for students in the academic programs.

Responsibilities for these functions are delineated in the School bylaws, policies, and procedures, found in Resource File 1.3.c.4.

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### **1.5.B.7 RESEARCH AND SERVICE EXPECTATIONS AND POLICIES**

The University of Colorado rules require that research and service are expectations for maintaining and being promoted as a faculty member (assistant professor and above) in the tenure and research tracks. In the clinical teaching track, there is no expectation for research, but the expectation for service remains. Through development and approval of the ColoradoSPH bylaws, the faculty have set the standards for performance in these areas in ColoradoSPH. Further, faculty members, as members of the DAPTCO and APT committees, review and assess contributions in research and service at mid-course reviews and at the time of consideration for promotion and tenure, and make recommendations to the department chairs and the dean. Expectations for research include the generation of new knowledge across a wide variety of topics, locations, populations, and areas of interest. Similarly, there are significant expectations of faculty for service to their field, their communities, and their institutions. The School's bylaws detail these requirements and the ways in which they are balanced for appointment, promotion, and tenure. Department chairs, associate deans, and the dean are responsible for developing a supportive environment that encourages research and service.

Students are encouraged to participate in and/or conduct primary research activities in all academic and professional programs of the School. These are described more fully in Section 4.

#### **1.5.C COPY OF THE SCHOOL'S BYLAWS OR OTHER POLICY DOCUMENTS THAT DETERMINE THE RIGHTS AND OBLIGATIONS OF ADMINISTRATORS, FACULTY AND STUDENTS IN GOVERNANCE OF THE SCHOOL**

The bylaws were initially approved by the voting faculty on March 14, 2008, after a faculty committee drafted and reviewed them together with the newly appointed founding dean (see Resource File 1.3.c.4). The bylaws were most recently revised and approved by the faculty in 2012, and they are currently undergoing revision, with a faculty vote scheduled for September 2015. As described in the ColoradoSPH Bylaws, the policies and procedures of Faculty Senate committees are approved by the Faculty Senate. Faculty Senate voted on revised Policies and Procedures for the Appointments, Promotion and Tenure Committee; Education and Curriculum Committee; and Space Committee during its February 2015 meeting. Policies and procedures are being developed for the Research Committee, as the current bylaws do not address the Research Committee.

## 1.5.D IDENTIFICATION OF SCHOOL FACULTY WHO HOLD MEMBERSHIP ON UNIVERSITY COMMITTEES, THROUGH WHICH FACULTY CONTRIBUTE TO THE ACTIVITIES OF THE UNIVERSITY

TABLE 1.5.D. MEMBERSHIP ON UNIVERSITY COMMITTEES

<p><u>CU Denver/Anschutz Academic and Student Affairs Leadership Committee</u> Lori Crane Jan Gascoigne</p> <p><u>CU Denver/Anschutz Vice Chancellor's Advisory Committee</u> Carolyn DiGuseppi Spero Manson</p> <p><u>CU Denver/Anschutz Campus Space Committee</u> John Adgate David Goff</p> <p><u>CU System Faculty Council Budget Committee</u> Richard Lindrooth</p> <p><u>CU Anschutz IDC Waiver Committee</u> Spero Manson</p> <p><u>CU Denver/Anschutz Teaching and Learning IT Governance Committee</u> Lori Crane</p> <p><u>CU Denver/Anschutz IT Governance for Research &amp; Creative Endeavors</u> Dana Dabelea</p> <p><u>CU Denver/Anschutz Program Review Panel</u> Debashis Ghosh Sheana Bull</p> <p><u>CU Anschutz Deans</u> David Goff</p> <p><u>CU Anschutz Coordinating Council</u> David Goff</p> <p><u>Colorado Clinical and Translational Sciences Institute Internal Advisory Committee</u> David Goff</p> <p><u>Center for Biomedical Informatics and Personalized Medicine Internal Advisory Committee</u> David Goff</p>	<p><u>CU Denver/Anschutz Online Visioning Task Force</u> David Goff</p> <p><u>CU Denver/Anschutz One Health Steering Committee</u> Spero Manson</p> <p><u>CU Denver/Anschutz Faculty Assembly</u> Anna Baron Dawn Comstock</p> <p><u>UNC Community Engagement Committee</u> Elizabeth Gilbert</p> <p><u>CSU Presidential Commission on Ethnic Diversity</u> Ernest Chavez</p> <p><u>CSU Strategic and Financial Planning Committee</u> Kurt Hallahan</p> <p><u>CSU University Faculty Honors Council</u> David MacPhee</p> <p><u>CSU Council of Deans</u> Jeffrey McCubbin</p> <p><u>CSU Faculty Council</u> Tracy Nelson John Rosecrance</p> <p><u>CSU University Curriculum Committee</u> Howard Ramsdell</p> <p><u>CSU Committee on Faculty Governance</u> Stephen Reynolds</p> <p><u>CSU Graduate Education Committee</u> Lorann Stallones</p> <p><u>CSU Committee on Responsibilities and Standing of Academic Faculty</u> Dawn Thilmany</p>
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### **1.5.E DESCRIPTION OF STUDENT ROLES IN GOVERNANCE, INCLUDING ANY FORMAL STUDENT ORGANIZATIONS**

ColoradoSPH students participate in university and School governance through a number of different organizations and committees. Feedback of a more informal nature is collected during advising, periodic focus groups, dean and student council town hall meetings, and other student events.

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#### **REPRESENTATION ON COLORADOSPH STANDING AND AD HOC COMMITTEES**

The ColoradoSPH Student Leadership Council elects representatives to sit on the following School-wide committees: Executive Council, Education and Curriculum Committee, Scholarship and Awards Committee, Senate. These are currently held by the following students: Executive Council – K. Hall, MPH student at UNC; Education and Curriculum Committee - R. Gan, PhD student at CU Anschutz; Faculty Senate - M. Phares, MPH student at CU Anschutz; Scholarships and Awards Committee - K. Floren, MPH student at UNC, L. Smith, MPH student at CSU, M. Phares, MPH student at CU Anschutz. Additionally, upon need for meetings of the Honor Code or Grievance Committee, mandatory student positions must be filled. Since the inception of the School, there have been no formal violations or grievances that required the Honor Code or Grievance Committee to convene. Students also serve on ad hoc faculty and staff recruitment committees.

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#### **STUDENT ORGANIZATIONS**

ColoradoSPH has three student council groups representing each of the partner institutions, as well as a central Student Leadership Council, which is comprised of the president and vice president of each of the respective home campus councils. All School students are eligible to participate in these student councils. In addition to these school-based organizations and committees, ColoradoSPH students may have representatives on campus-wide student committees or groups as described below.

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#### **COLORADOSPH STUDENT LEADERSHIP COUNCIL**

The Student Leadership Council charge is to support students pursuing an education and career in the field of public health; foster a sense of community among students; assist in the growth of ColoradoSPH; promote diversity and acceptance within the student body; and establish and maintain strong relationships with Colorado communities. There are six voting members, which include the president and vice president from each campus student council. It is through the Student Leadership Council that at least one cross-campus event is planned each semester; membership of students on school-wide committees is assured; feedback is provided to ColoradoSPH faculty and administration; school-wide student concerns are addressed; and student communication across campuses is assured. Minutes and documentation of student council activities are in Resource File 1.5.a.

TABLE 1.5.E. STUDENT LEADERSHIP COUNCIL EXECUTIVE COMMITTEE MEMBERSHIP, 2014-15

Member	Affiliation
Natalie Thomas	UNC - MPH
Kelly Hall	UNC - MPH
Molly Phares	CU - MPH
Nicholas Ellinwood	CU - MPH
Laura Smith	CSU - MPH
Amanda Hall	CSU - MPH
Jan Gascoigne, PhD, MCHES, Associate Dean for Student Affairs	Faculty Advisor

### STUDENT COUNCIL – CU ANSCHUTZ

The Colorado School of Public Health at CU Anschutz Student Council serves all students with a home campus of CU Anschutz. The membership is open to MPH, MS, DrPH, PhD, and certificate students. The mission is to:

- Cultivate professional relationships with public health organizations in the community
- Serve as liaisons and representatives of the student body to the ColoradoSPH faculty and staff
- Collaborate with other health science disciplines to contribute to the betterment of the CU Anschutz campus and community

### STUDENT COUNCIL – COLORADO STATE UNIVERSITY

The Colorado School of Public Health at CSU Student Council is an official CSU student organization. It is a group comprised of current graduate MPH students. The purpose of the CSU Student Council is to:

- Support students pursuing an education and career in the field of public health by providing a forum where students can share and discuss ideas and information relevant to public health and by serving as a liaison between the student body and ColoradoSPH administration and faculty
- Foster a sense of community between students in public health programs and all other programs, colleges, and departments within CSU and affiliated academic partners
- Assist in the growth of ColoradoSPH
- Promote diversity and acceptance among the students by working within CSU and its academic partners
- Establish and maintain a strong relationship with Colorado communities by participating in community outreach programs and promoting the training and retention of qualified public health professionals within Colorado and the Rocky Mountain region

### STUDENT COUNCIL – UNIVERSITY OF NORTHERN COLORADO

The ColoradoSPH at UNC Student Council is an official UNC student organization as of spring 2014. It is a group comprised of current graduate MPH and Certificate of Public Health Sciences students; however, undergraduates in other fields are also encouraged to get involved with community outreach activities. The main purposes of the council are to support student members, serve as a governing body and liaison to ColoradoSPH administration and faculty, build strong community partnerships, provide opportunities for

meaningful community engagement related to the public health field, and focus on social interaction within the ColoradoSPH at UNC community and also within the ColoradoSPH collaboration. The objectives of the student council are listed below:

- Support graduate students pursuing an education and career in the field of public health
- Foster a sense of community among students
- Assist in the growth of ColoradoSPH
- Promote diversity and acceptance within the student body
- Establish and maintain community engagement and volunteerism in surrounding Northern Colorado communities
- Provide ColoradoSPH at UNC student representation on the ColoradoSPH Student Leadership Council

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## CU ANSCHUTZ GRADUATE STUDENT COUNCIL

The Graduate Student Council at CU Anschutz is open to all MS and PhD students at the ColoradoSPH. It represents student concerns, interests, and recommendations to the CU Anschutz Student Senate and the University of Colorado Denver/Anschutz administration. It also serves as a resource for communication between the Graduate Student Body and other organizations on campus. Membership is open to graduate students enrolled in a Graduate School program listed in the Graduate Student Council Bylaws. The Graduate Student Council strives to represent students from all graduate programs at University of Colorado Denver Anschutz Medical Campus. Meetings are held monthly during the academic year.

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## CU ANSCHUTZ STUDENT SENATE

The CU Anschutz Student Senate is the student governing body for the CU Anschutz campus. The senate is composed of two elected representatives from each class of the various disciplines at the campus, including the CU schools of Medicine, Dental Medicine, Graduate (Basic Sciences), Pharmacy, College of Nursing, Colorado School of Public Health and programs in Physical Therapy, Dental Hygiene and Physician's Assistant/Child Health Associate. Student input to the senate is not restricted to elected senators.

Responsibilities of ColoradoSPH Student Senators to CU Anschutz Student Senate:

- Senators act as voting class representatives to the CU Anschutz Student Senate
- Senators inform their class of the activities of the Student Senate
- Senators obtain class opinion regarding Student Senate matters
- At least one student senator must attend every ColoradoSPH Student Council meeting and provide a brief report on student senate activities



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## CSU GRADUATE STUDENT COUNCIL

The purpose of the graduate student council is to represent the interests of the graduate students at CSU in general, and at the Associated Students of CSU (ASCSU) in particular, and to strengthen the program of graduate study by:

- Serving as a means of communication between graduate students, university faculty and administration throughout the university
- Electing qualified graduate students to represent the graduate student body in Faculty Council committees, university committees and organizations
- Making decisions on how to allocate graduate-student fees appropriated by ASCSU that adhere to ASCSU and the State of Colorado spending restrictions for student organizations

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## UNC COLLEGE OF NATURAL AND HEALTH SCIENCES STUDENT COUNCIL

The College of Natural and Health Sciences (NHS) Student Council currently consists of 15 members. Membership is open to one representative from each of the seven schools in NHS (Biological Sciences, Chemistry & Biochemistry, Earth Sciences & Physics, Human Sciences, Mathematical Sciences, Nursing, and Sport and Exercise Science), one representative from each chartered NHS student club, and the dean's office representative (advisor). The NHS Student Council provides a communication liaison between the student body, NHS faculty, and NHS administration. NHS Student Council strives to develop student voice within NHS and to foster greater communication among the students of NHS as well as the university community.

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## UNC STUDENT REPRESENTATIVE COUNCIL

The Student Representative Council is open to UNC-based ColoradoSPH students. The purpose of the council is to address student issues and concerns, and to act as a liaison to UNC administration and faculty. The council has liaisons to the UNC president, vice president for academic affairs, vice president for student affairs, diverse programs chair, vice president for administration, vice president of university relations, the UNC Board of Trustees, state and county elected officials, legislators, and the UNC dean of students.

### 1.5.F ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET

This criterion is met.

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## STRENGTHS

Rights and responsibilities for School governance and academic policies are clearly defined and provide a strong voice for faculty and students. The roles across partner institutions are clearly defined and integrated into the overall governance of ColoradoSPH. Students have many opportunities to participate in governance through membership on school-wide committees and through student organizations both centrally for the School as a whole and at their home campuses.

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## **WEAKNESSES**

While structures exist for staff participation in governance, the implementation of this role within the School has been sporadic. Faculty participation is impeded by the heavy demand of teaching and research responsibilities, leaving limited time for participation in governance. There is a tendency for a small number of faculty to be broadly involved in governance, and for the majority of faculty to have a limited role due to their time constraints and sense of priorities. Similarly, a small number of students tend to be highly involved in governance, while the majority is not. Some standing committees meet very infrequently (e.g., scholarships and awards), which hampers continuity of participants and knowledge of history and policies. The burden of committee work on faculty is substantial, yet funding is not available at this time for even the most demanding of these roles.

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## **PLANS**

Leadership positions for a selected number of committees were previously compensated, until budgetary restrictions required suspension of this practice. Paid positions included president of Faculty Senate, and chairs of the Education and Curriculum Committee, Appointments, Promotions and Tenure Committee, and the Scholarship and Awards Committee. It is understood that this compensation will be reinstated as budgetary challenges are overcome. We expect this to be possible by fiscal year 2016-17.

## 1.6 FISCAL RESOURCES

### 1.6.A BUDGETARY AND ALLOCATION PROCESSES

The Joint Budget Committee of the Colorado legislature reviews a budget submitted by the governor in the fall of each year, and proposes a final state allocation budget for higher education for the upcoming fiscal year. Portions of this document set the state's General Fund Appropriation for the Colorado Opportunity Fund (student stipend and fee-for-service funds), classified state employee salary and benefits, and cash authority for resident and non-resident tuition revenue. The governor signs the budget, with its higher education allocations, in May.

The Colorado Commission on Higher Education (CCHE) negotiates funding for higher education costs. CCHE allocates fee-for-service funding to the governing boards of all higher education institutions across the state and negotiates performance contracts with the governing boards to measure performance against broad goals set by the legislature. Once the governing boards of all of the partnering institutions receive the state funds, they allocate the funds to their respective campuses. For the lead institution, funds are allocated directly from the University of Colorado president and CU Board of Regents to the CU Anschutz chancellor. The chancellor's office then allocates the funding to the CU Anschutz schools based on a combination of historical funding levels, needs, and available funds. A similar process occurs at the partner institutions.

Prior to the distribution of state funds from the CU Anschutz chancellor to the School, the ColoradoSPH dean meets with the CU Denver/Anschutz chief financial officer, provost, and CU Anschutz chancellor to discuss the financial needs of the School, as well as potential challenges and opportunities. The dean proposes and negotiates funding for operations and new initiatives or expansion. The process of receiving state funding is the same for CSU and UNC. However, at these institutions, the departments and schools supporting the ColoradoSPH do not receive direct allocations from the budgeted revenue. Each respective university holds the budgeted revenue centrally and the operational units are budgeted as cost centers. Each cost center receives an expense budget allocation based on internal budget submissions from the departments and schools that support the ColoradoSPH.

ColoradoSPH constructs an unrestricted operational budget each spring, using projected expenses and revenue. This budget does not include the funds directly allocated to CSU and UNC by their respective universities. Revenue sources include tuition, state funding, university funding, grants, contracts, community partners, foundations, and other sources. The School budgets expenses based on strategic needs for the fiscal year, and historical compensation and operation costs. Revenue shortages are addressed through use of reserve and development monies from gifts and university commitments to ColoradoSPH.

The School forecasts tuition revenue based on student enrollment trends, pending student applications, and anticipated enrollment at each campus. The School allocates these resources based on forecasted expenditures and the tuition-sharing model. In addition, the dean and Executive Council review projections

for other resources including gift revenue, indirect cost recovery earnings, community grant support, and endowment earnings.

CSU and UNC fund their respective collaborative programs and then receive a tuition revenue transfer from the School that reimburses a portion of those costs. ColoradoSPH uses a tuition-sharing model (section 1.6.c.1) to allocate tuition to each campus, and transfers these funds from the lead institution to the partner institutions 8 to 10 weeks into the semester.

The annual tuition rate setting process begins in the fall each year for the upcoming fiscal year. The CU Anschutz chancellor proposes tuition rates within ranges set by the legislature, Colorado Commission on Higher Education, and the CU Board of Regents. The ColoradoSPH Executive Council reviews projected revenue and expenses, and votes on a percentage increase within a range determined by the Board of Regents. The President's Office, the Chancellor's Office and the Board of Regents review and approve requests.

The associate dean for administration and finance constructs, with department, administrative units and partner input, the upcoming annual budget for review and approval by the ColoradoSPH dean, Executive Council, and Inter-Institutional Steering Committee. The process begins in February and coincides with the CU Anschutz finance office calendar. The new budget is enacted on July 1, which is the start of the CU Anschutz fiscal year (as well as the start of the fiscal year at CSU and UNC). Budget analysis is conducted on an on-going basis during the fiscal year in order to meet the challenges of changing needs and the economic climate.

The CU Anschutz portion of the School budget is budgeted by administrative units and departments. Annually, the departments and administrative units provide the associate dean for administration and finance with salary and expense recommendations, for review by the dean. The dean makes adjustments as necessary to accommodate available resources or equity considerations. UNC and CSU faculty and staff salaries are determined by their home institutions through their formalized compensation processes.

All of these processes are in accordance with provisions of the MOA:

The fiscal year for the annual operating budgets for the School is July 1 through June 30. The Dean and the Directors shall meet annually and using a transparent process, will develop a consensus-based budget for the School, together with the input of persons specified in the Rules of the School that is both reasonable and fair for all Parties. Budgets will be reviewed and approved by the Inter-Institutional Steering Committee on an annual basis. Each Party will make every effort to ensure that the School is adequately resourced. It is a goal that a two to three year planning cycle will be developed that will allow buffering of annual fluctuations in revenue and expenses. In the event of disagreement that cannot be resolved between the Parties by discussions of the Senior Academic Officers, the Dean will have budget jurisdiction, subject to the rules and regulations of CU Denver, and approval of the Chancellor, President, and the Board of Regents.

All partners agree to provide support for School programmatic activities and will provide annual reports describing that support. Such support may consist of direct financial support or in-kind support, including, as examples, space and administrative support.

Parties agree that they will not charge each other administrative fees for handling or processing of tuition and for payments made by or to any of the Parties.

The School agrees that it will provide tuition and fee revenue to CSU and UNC to offset costs for teaching and management of the programs of each institution based on the number of students affiliated with each campus and the total annual number of student credit hours taken by School students and taught by faculty with a primary CSU appointment or primary UNC appointment, as applicable. Parties agree that this revenue will reflect the mix of resident and non-resident students and the tuition rates then in effect. A separate and mutually agreeable schedule will detail the rates and expenses. It is the intent of the Parties to make such payments as tuition and fee income is received. If an agreement cannot be reached, issues will be referred to the Dean of the School and the Director at CSU or UNC for resolution. If not resolved at this level, resolution will follow the procedures in "dispute resolution."

Because all partner institutions are state-sponsored universities, all partners are part of the same state allocation process and on the same schedule for state appropriations. Internally, each partner institution has its own budget process and timeline, but the three operate on the same fiscal year (July 1 – June 30).

## 1.6.B SCHOOL BUDGET STATEMENT

TABLE 1.6.B (TEMPLATE 1.6.1) SOURCES OF FUNDS AND EXPENDITURES BY MAJOR CATEGORY, FISCAL YEARS 2010-11 TO 2014-15

Category		FY10-11	FY11-12	FY12-13	FY13-14	FY14-15
Source of Funds						
Tuition & Fees <sup>1</sup>	Univ. of Colorado	\$3,026,029	\$3,623,622	\$3,978,059	\$4,646,666	\$5,650,015
	Colorado State Univ.	\$558,900	\$750,990	\$819,998	\$1,215,093	\$1,536,685
	Univ. of Northern Colorado	\$83,096	\$288,952	\$396,615	\$458,639	\$377,072
State Appropriation		\$843,699	\$860,474	\$1,637,173	\$1,883,436	\$4,148,705
University Funds		\$ 420,721	\$873,298	\$362,807	\$356,742	\$3,770,867
Grants/Contracts <sup>2</sup>		\$21,421,071	\$24,374,889	\$26,837,501	\$26,657,054	\$27,430,225
Indirect Cost Recovery		\$6,681,651	\$7,456,225	\$7,372,828	\$6,533,203	\$6,962,875
Endowment and Gifts		\$1,486,030	\$1,770,226	\$880,330	\$1,366,000	\$1,509,067
Interest on Reserves		\$3,899	\$1,912	\$872	\$822	\$451
Transfer from (to) Reserves		(\$860,225)	\$439,585	\$1,850,476	\$839,851	(\$1,548,130)
<b>Total</b>		<b>\$33,664,871</b>	<b>\$40,440,174</b>	<b>\$44,136,659</b>	<b>\$43,957,507</b>	<b>\$49,837,832</b>

Category	FY10-11	FY11-12	FY12-13	FY13-14	FY14-15
Use of Funds					
Faculty Salaries & Benefits	\$15,152,521	\$18,350,232	\$18,948,874	\$18,007,159	\$19,002,051
Staff Salaries & Benefits	\$3,776,877	\$4,695,123	\$6,234,907	\$6,204,662	\$6,757,232
Operations	\$7,561,386	\$9,287,146	\$9,770,588	\$11,097,483	\$9,349,896
Travel	\$958,980	\$1,278,093	\$1,286,794	\$1,026,118	\$901,186
Student Support <sup>3</sup>	\$138,192	\$135,130	\$213,286	\$267,643	\$680,233
Tuition transfer to CSU and UNC <sup>1</sup>	\$597,782	\$752,874	\$1,010,469	\$1,401,023	\$1,501,965
University Tax <sup>4</sup>	\$5,479,132	\$5,941,576	\$6,671,741	\$5,953,419	\$11,645,270
<b>Total</b>	<b>\$33,664,871</b>	<b>\$40,440,174</b>	<b>\$44,136,659</b>	<b>\$43,957,507</b>	<b>\$49,837,832</b>

<sup>1</sup> Tuition and fees are the only sources of funds that flow through the lead intuition. They are offset by the "tuition transfer" use category.

<sup>2</sup> Amount to CU Anschutz ColoradoSPH only; excludes grants in other schools and partner universities

<sup>3</sup> Scholarships to students. The university also offers a tuition waiver benefit for employees. The cost for these awards is classified as a benefit and shown in the respective salary & benefits lines.

<sup>4</sup> Includes School's portion of university's central services allocated revenue and expenses.

## EXPLANATIONS FOR MAJOR VARIANCES ACROSS YEARS

Over the past few years, ColoradoSPH has increased the number and types of scholarship awards. In FY14-15, ColoradoSPH established a new scholarship program to attract highly qualified out-of-state students. This scholarship program increased the student support line by \$400K.

In FY14-15, the University of Colorado revised how it accounts for the costs of central university administrative services. The revised allocation methodology increased the amount of state and university funds provided to the School and increased the taxation rate applied to the School to cover these central university expenses. In other words, the university provides funds to schools to pay back to the university for the centralized support provided by the university. Thus, a substantial increase in funding provided to the School was offset by an increase in the expense line shown in the university tax line. The net effect of the change was a modest increase in funding available to the School.

## 1.6.C PARTNER UNIVERSITY FINANCIAL CONTRIBUTIONS AND INCOME SHARING

Support from CSU and UNC is primarily provided through the space and teaching effort of their respective faculties, the administrative support provided to faculty, and the effort of institutional leaders devoted to the Inter-Institutional Steering Committee. The direct financial contribution of the partners to the operating budget of the School is reflected in the tuition and transfer categories shown in Table 1.6.b. Across all partners, 20% of tuition revenue is devoted to covering central school administrative expenses.

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### 1.6.C.1 TUITION SHARING AND OTHER INCOME

CSU and UNC fund the administrative and programmatic expenses of their respective MPH programs as a financial commitment to ColoradoSPH, and tuition revenue reimburses a portion of these expenses each term.

Tuition Sharing: The tuition-sharing model is based on five weighted factors. The factors and weighting are agreed upon by the partner institutions by consensus, and can be adjusted as needs change.

- Student's home campus – 35%\*
- Faculty member's home campus – 35%\*
- Facility where course taught – 10%
- ColoradoSPH administration – 20%\*

\* Factors were adjusted starting in FY12 to reach % listed starting in FY16.

Credit hours for each course are accumulated for each of the factors. The credit hour percentage for each campus is then applied to the tuition dollars for each factor, arriving at the tuition allocation for that factor. The tuition-sharing model is reviewed for adequacy and equity annually by the Inter-Institutional Steering Committee.

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### 1.6.C.2 INDIRECT COST RECOVERY (ICR)

CU Anschutz rules and faculty bylaws pertaining to ICR sharing govern the transfer of funds into ColoradoSPH ICR reserves. Eighty percent of indirect cost revenue received by CU Anschutz is allocated to the campus and 20% to the schools. However, due to the continued facilities construction at CU Anschutz, one-half of the 20% is also retained by the campus to fund construction, leaving 10% for the schools. The ColoradoSPH retains 10% of the ICR allocated at the School central administration, and 90% of the allocation goes to the School's departments and centers. Beginning in FY2016, a departmental budgeting process is being implemented to allocate proportional tuition, state funds, and other revenues directly to departments. CSU and UNC manage their indirect cost recovery revenues, and these funds do not flow to ColoradoSPH, except in cases where subcontracts with School faculty at CU Denver/Anschutz are involved.

The MOA between the partners specifies that shared grants and contracts will follow federal policies for indirect cost recovery. Therefore, a grant awarded to CU Anschutz that has collaborating faculty at a partner institution will contain provisions for a subcontract to the partner institution at its applicable ICR rate. The ICR monies allocated to each university flow to departments and faculty based on local policies and procedures. Similarly, grants and contracts to CSU or UNC with CU Anschutz faculty involvement will contain subcontracts to CU Anschutz under that institution's applicable policies and procedures.

Increases in ICR received in the early years shown in Table 1.6.b are a result of growth in the research enterprise. The slight declines in ICR received in the most recent years reflect the combined effects of shifts in our research portfolio to lower ICR funding sources and University policies that penalize units that show decreases in total ICR. It is our expectation that this revenue source will stabilize and grow slowly over the next few years.

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### 1.6.C.3 UNIVERSITY FUNDS

The line for “university funds” includes funds committed to the start-up of the School and funds provided directly to centers within the School. As per accounting procedures in place at the University of Colorado level, these funds are shown as allocated in the year they are spent; hence, this table shows the funds as being received during the year in which the funds were expended. The variations in level of university funding are, in part, a reflection of variations in the early years, or expenditures of university funds in relation to gift funds intended to support School start up. It is our expectation that this revenue source will stabilize at its current level for the next few years.

### 1.6.D MEASURABLE OUTCOMES FOR FISCAL RESOURCES

TABLE 1.6.D MEASURABLE OUTCOMES RELATED TO FISCAL RESOURCES

Objective	Measure	Target	2012-2013	2013-2014	2014-2015
3.1 Maintain the financial resources to achieve the School's mission and vision	State funding	\$2,000,000	\$1,637,173	\$1,883,436	\$4,148,705
	Tuition revenue	\$8,000,000	\$5,194,672	\$6,320,398	\$7,563,772
	Grant funding	\$30,000,000	\$26,837,501	\$26,657,054	\$27,430,225
	Fundraising	\$1,500,000	\$880,330	\$1,366,000	\$1,509,067

### 1.6.E ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET

This criterion is met.

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#### STRENGTHS

The School has the financial resources to maintain its operations. There is a clear budgeting process, with input from relevant parties. The partner institutions collaborate on setting parameters for allocation of resources across partners.

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#### WEAKNESSES

The School receives little net state funding, due to legislative priorities and actions in the State of Colorado. The School must essentially operate on tuition and grant revenue, which is challenging. We regret that we cannot offer our educational programs at a lower tuition, but we are at approximately the median for public schools of public health. Tuition resources are further strained because of a University of Colorado tuition benefit that allows employees to take 9 credits per year without paying tuition. There is no reimbursement



for these tuition waivers that are provided as an employee benefit. This is a particular problem for the School, since the majority of tuition waivers used by employees on the CU Anschutz campus are used for ColoradoSPH courses. The lost tuition due to waivers amounted to \$392,551 in the 2014-15 academic year. Moreover, revenues available from indirect cost recovery are extremely limited, given the university's dependence on these funds. In FY12-13, due to financial shortfalls, three staff positions were eliminated by the School, and salary support for faculty teaching and service effort was reduced.

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## PLANS

It is an ongoing role of the dean to advocate for the additional financial resources for the School. In FY 2014-2015, the CU Anschutz chancellor agreed to commit an additional \$525,000 in one-time funds over the next 3 years to help fund ColoradoSPH central administrative staffing as departmental budgets are implemented and the student body grows to meet the faculty teaching capacity. As a new school with relatively few alumni, there is not yet a tradition of giving to support the School. The CU Foundation provides support for fundraising, and we are engaged in identifying and beginning cultivation of a potential donor pool that may eventually represent a major component of support. We are developing materials to use in telling the story of ColoradoSPH to potential donors, and expect the materials to be available by year's end. Student recruitment efforts have been implemented to increase enrollment and therefore tuition revenue with a focus on attaining cost-effective class sizes while maintaining high quality education. We are working toward restoration of the FY13 reductions in support for faculty teaching and service effort and expect to have at least partial restoration by fiscal year 2016-17.



## 1.7 FACULTY AND OTHER RESOURCES

### 1.7.A CONCISE STATEMENT OR CHART DEFINING THE NUMBER (HEADCOUNT) OF PRIMARY FACULTY IN EACH OF THE FIVE CORE PUBLIC HEALTH KNOWLEDGE AREAS EMPLOYED BY THE SCHOOL FOR EACH OF THE LAST THREE YEARS

TABLE 1.7.A (TEMPLATE 1.7.1) PRIMARY FACULTY BY CORE KNOWLEDGE AREA FOR THE LAST THREE YEARS

School and Program	2013-14	2014-15	Fall 15
<b>UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS (LEAD) – 5 core areas</b>			
Biostatistics	17	16	15
Community and Behavioral Health	19	21	24
Environmental and Occupational Health	5	6	7
Epidemiology	12	13	13
Health Systems, Management and Policy	8	6	8
<b>TOTAL CU Anschutz</b>	<b>61</b>	<b>62</b>	<b>67</b>
<b>UNIVERSITY OF NORTHERN COLORADO</b>			
Community and Behavioral Health	5	4	4
<b>COLORADO STATE UNIVERSITY</b>			
Biostatistics	1	1	1
Community and Behavioral Health	32	37	37
Environmental and Occupational Health	9	7	8
Epidemiology	13	16	17
<b>TOTAL CSU</b>	<b>55</b>	<b>61</b>	<b>63</b>

### 1.7.B TABLE DELINEATING THE NUMBER OF FACULTY, STUDENTS AND SFRS, ORGANIZED BY DEPARTMENT OR SPECIALTY AREA, OR OTHER ORGANIZATIONAL UNIT AS APPROPRIATE TO THE SCHOOL, FOR EACH OF THE LAST THREE YEARS (CALENDAR YEARS OR ACADEMIC YEARS) PRIOR TO THE SITE VISIT

Tables 1.7.b(1) to 1.7.b(3) begin on the following page.

TABLE 1.7.B(1) (TEMPLATE 1.7.2) FACULTY, STUDENTS AND STUDENT/FACULTY RATIOS BY DEPARTMENT OR SPECIALTY AREA, 2013-2014

	HC Primary Faculty	FTE Primary Faculty	HC Other Faculty	FTE <sup>2</sup> Other Faculty	HC Total Faculty	FTE Total Faculty	HC Students	FTE Students <sup>1</sup>	SFR by Primary Faculty FTE	SFR by Total Faculty FTE
<b>UNIVERSITY OF COLORADO (LEAD)<sup>2</sup></b>										
Biostatistics	17	17.0	8	3.6	25	20.6	46	31.2	1.8	1.5
Community and Behavioral Health	19	17.2	12	5.1	30	22.3	96	65.6	3.8	2.9
Environmental and Occupational Health	5	5.0	9	2.9	14	7.9	17	10.7	2.1	1.4
Epidemiology	12	11.6	8	3.6	20	15.2	101	67.9	5.9	4.5
Health Systems, Management and Policy	8	7.7	13	2.0	21	9.7	71	45.2	5.9	4.7
<b>Total</b>	<b>61</b>	<b>58.5</b>	<b>50</b>	<b>17.2</b>	<b>110</b>	<b>75.7</b>	<b>331</b>	<b>220.6</b>	<b>3.8</b>	<b>2.9</b>
<b>UNIVERSITY OF NORTHERN COLORADO<sup>3</sup></b>										
Community Health Education	5	4.0	0	0	5	4.0	34	23.3	5.8	5.8
<b>COLORADO STATE UNIVERSITY<sup>4</sup></b>										
Animals, People and the Environment	11	1.2	0	0	11	1.2	10	8.9	7.2	7.2
Environmental and Occupational Health	2	0.1	0	0	2	0.1	2	1.2	10.9	10.9
Epidemiology	7	1.3	0	0	7	1.3	13	9.3	7.1	7.1
Global Health and Health Disparities	15	2.5	0	0	15	2.5	26	20.3	8.1	8.1
Health Communication	5	0.9	0	0	5	0.9	6	4.5	4.8	4.8
Physical Activity and Healthy Lifestyles	9	1.3	0	0	9	1.3	12	10.7	8.0	8.0
Public Health Nutrition	6	1.0	0	0	6	1.0	4	2.9	2.9	2.9
<b>Total</b>	<b>55</b>	<b>8.4</b>	<b>0</b>	<b>0</b>	<b>55</b>	<b>8.4</b>	<b>73</b>	<b>57.8</b>	<b>6.9</b>	<b>6.9</b>

TABLE 1.7.B(2) (TEMPLATE 1.7.2) FACULTY, STUDENTS AND STUDENT/FACULTY RATIOS BY DEPARTMENT OR SPECIALTY AREA, 2014-2015

	HC Primary Faculty	FTE Primary Faculty	HC Other Faculty	FTE Other Faculty	HC Total Faculty	FTE Total Faculty	HC Students	FTE Students <sup>1</sup>	SFR by Primary Faculty FTE	SFR by Total Faculty FTE
<b>UNIVERSITY OF COLORADO (LEAD)<sup>2</sup></b>										
Biostatistics	16	16.0	12	4.6	28	20.6	50	33.3	2.1	1.6
Community and Behavioral Health	20	19.2	10	4.9	30	24.1	128	84.5	4.4	3.5
Environmental and Occupational Health	6	5.7	9	2.9	15	8.6	28	19.8	3.5	2.3
Epidemiology	13	12.6	7	1.9	20	14.5	120	86.1	6.8	5.9
Health Systems, Management and Policy	6	5.7	12	2.6	18	8.3	79	54.7	9.6	6.6
<b>Total</b>	62	59.2	51	16.9	111	76.1	405	278.4	4.7	3.7
<b>UNIVERSITY OF NORTHERN COLORADO<sup>3</sup></b>										
Community Health Education	4	2.8	1	0.4	5	3.2	30	18.4	6.6	5.8
<b>COLORADO STATE UNIVERSITY<sup>4</sup></b>										
Animals, People and the Environment	13	1.1	0	0	13	1.1	14	11.7	10.5	10.5
Epidemiology	9	1.6	0	0	9	1.6	20	16.4	10	10
Global Health and Health Disparities	17	2.3	0	0	17	2.3	28	25.3	11.1	11.1
Health Communication	6	0.6	0	0	6	0.6	6	6.0	9.7	9.7
Physical Activity and Healthy Lifestyles	9	1.3	0	0	9	1.3	17	15.7	12.2	12.2
Public Health Nutrition	7	1.2	0	0	7	1.2	4	2.1	1.8	1.8
<b>Total</b>	61	8.1	0	0	61	8.1	75	50.5	6.3	6.3

TABLE 1.7.B(3) (TEMPLATE 1.7.2) FACULTY, STUDENTS AND STUDENT/FACULTY RATIOS BY DEPARTMENT OR SPECIALTY AREA, FALL 2015 *STUDENT DATA AND SFR TO BE PRESENTED AT SITE VISIT*

	HC Primary Faculty	FTE Primary Faculty	HC Other Faculty	FTE Other Faculty	HC Total Faculty	FTE Total Faculty	HC Students	FTE Students <sup>1</sup>	SFR by Primary Faculty FTE	SFR by Total Faculty FTE
<b>UNIVERSITY OF COLORADO (LEAD) <sup>2</sup></b>										
Biostatistics	15	15.0	8	3.8	23	18.8				
Community and Behavioral Health	24	23.2	9	4.5	33	27.6				
Environmental and Occupational Health	7	6.7	10	3.7	17	10.4				
Epidemiology	13	12.6	6	1.8	19	14.3				
Health Systems, Management and Policy	8	7.7	13	1.8	21	9.5				
<b>Total</b>	<b>67</b>	<b>65.2</b>	<b>46</b>	<b>15.5</b>	<b>113</b>	<b>80.7</b>				
<b>UNIVERSITY OF NORTHERN COLORADO<sup>3</sup></b>										
Community Health Education	4	1.2	1	0.6	5	3.2				
<b>COLORADO STATE UNIVERSITY<sup>4</sup></b>										
Animals, People and the Environment	14	1.0	0	0	14	1.0				
Epidemiology	9	1.4	0	0	9	1.4				
Global Health and Health Disparities	18	2.8	0	0	18	2.8				
Health Communication	6	0.9	0	0	6	0.9				
Physical Activity and Healthy Lifestyles	9	1.2	0	0	9	1.2				
Public Health Nutrition	7	0.9	0	0	7	0.9				
<b>Totals</b>	<b>63</b>	<b>8.2</b>	<b>0</b>	<b>0</b>	<b>63</b>	<b>8.2</b>				

**Key:**

HC = Head Count

Primary = Full-time faculty who support the teaching programs

FTE = Full-time-equivalent

Other = Adjunct, part-time and secondary faculty and "other faculty" (see note 2)

Total = Primary + Other

SFR = Student/Faculty Ratio

**Notes:**

<sup>1</sup>To calculate student FTE, we counted any student with 18 or more total credit hours taken between fall and spring of an academic year as 1.0 FTE. Students with fewer than 18 credit hours were assigned FTE based on the number of credit hours taken over fall and spring semesters, divided by 18. Students who switched from one program to another between fall and spring of an academic year were counted in both programs, with their total FTE split between programs to reflect the coursework taken in each program during that year.

<sup>2</sup> Faculty involved in the teaching programs who had full-time paid appointments were designated as “CEPH Primary Faculty.” Other regular faculty involved in teaching who were not employed full-time were considered “Other Primary” and grouped with Secondary in SFR calculations. At CU Anschutz faculty members falling into “CEPH Primary Faculty” and “Other Primary” were assigned the FTE at which they were employed, with deductions of 0.05 FTE for each credit hour taught in the undergraduate public health program in the College of Liberal Arts and Sciences. Secondary faculty (not regular employees of the University) were awarded .04 FTE for each credit hour taught. When there were multiple instructors for a course, each was awarded an equal fraction of the 0.04 FTE per credit hour for the course.

<sup>3</sup> All five UNC faculty were employed full time and considered “CEPH Primary Faculty” in 2012-13. For “CEPH Primary Faculty,” FTEs were reduced .04 FTE per credit hour for courses taught outside of the ColoradoSPH. In 2013-2014, Nora May (Testerman) was not employed full time. She was considered “Other Primary” and was thus awarded .04 FTE for every credit hour taught.

<sup>4</sup> All CSU faculty with appointments in the ColoradoSPH are considered to be “CEPH Primary Faculty.” All CSU faculty were given .05 FTE as a baseline. They were awarded 0.04 FTE for each ColoradoSPH credit hour taught. When there were multiple instructors for a course, each was awarded an equal fraction of the 0.04 FTE for the course. An additional 0.10 FTE was awarded to faculty who headed MPH concentrations at CSU. An additional .50 FTE was awarded to T. Nelson, who is associate director of the MPH program at CSU. A full 1.0 FTE was assigned to L. Stallones, who is the director of the MPH program at CSU.

### 1.7.C OTHER PERSONNEL

Overall, there are 80 staff positions (78.5 FTE) distributed as follows: Dean’s Office (2.0), Office of Faculty Affairs (1.0), Office of Academic Affairs (2.0), Office of Student Affairs (5.0), Communications and External Relations (1.0), Administration, Human Resources, and Finance (5.0), Research Administration (2.0), Departmental Administration (5.0), CSU Administration (2.0), UNC Administration (0.5), and center support staff (53.0).

### 1.7.D SPACE RESOURCES

Provision of adequate space resources was explicitly addressed in the MOA:

The administration of the School, CU faculty, staff, and students will primarily be located at the Anschutz Medical Campus of CU Denver, in Aurora, Colorado, and may conduct education, research and service activities of the School at other locations as required. The Director, faculty, staff and students at CSU will be primarily located in Fort Collins, Colorado, and at other campuses and locations as required. The Director, faculty, staff and students at UNC will be primarily located in Greeley, Colorado and at other campuses and locations as required. Students taking classes at the School may utilize classroom and other instructional delivery centers at any Party's locations as mutually agreed upon in advance. All Parties will endeavor to identify, schedule and provide educational space as required by the School. Except as required by special circumstances, and agreed upon in advance by the Parties, no fees or expenses will be incurred or charged by any Party for the use of such space.

Offices will be provided to faculty at the location of their primary appointment by the Party providing the primary appointment. Parties will endeavor to identify shared/temporary office space for faculty or staff who teach or provide significant administrative service at the location of their secondary appointment for an appropriate time period.

Should faculty and/or students require the use of research laboratory space available only on another Party's campus, a separate written agreement with the individuals responsible for space at each Party is required, co-signed by the Dean and Director.

The Parties may enter into joint rental, leasing, sub-leasing, or other facility mechanisms consistent with the property acquisition and usage rules, regulations and applicable laws, policies, and statutes governing the Parties. Such joint facility development will be made under one or more separate agreements for each facility.

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## CU ANSCHUTZ

At the CU Anschutz Medical Campus, ColoradoSPH has been allocated space across campus and at a variety of offsite leased locations. The CU Anschutz space is located in Building 500, Building 406, Education Buildings 1 and 2, and a separate clinical research building on CU Anschutz (Building 402).

The facilities at CU Anschutz and leased space have a total assignable square footage of 72,320 square feet, the distribution of which is shown in Table 1.7.d.

TABLE 1.7.D ASSIGNABLE SQUARE FOOTAGE BY BUILDING

	Administration	Student Services	Faculty Offices and Research	Common Area	Service Center	Total
BLDG 500	4,010	1,880	14,500	1,075	0	21,465
BLDG 402	0	0	6,260	4,210	0	10,470
BLDG 406	0	0	4,575	1,510	4,125	10,210
Center Research (leased)	0	0	30,175	0	0	30,175
Total	4,010	1,880	55,510	6,795	4,125	72,320

The two education buildings on the CU Anschutz campus have a total of 390,627 square footage of classroom, lecture hall, small group learning and computer laboratory space with modern electronic access and distance educational technology in many classrooms. There is a commons room designated for public health student collaboration. Maps of this space are in Resource File 1.7.d.

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## COLORADO STATE UNIVERSITY

ColoradoSPH has four offices in Sage Hall on the CSU campus and a research computer lab shared by MPH graduate assistants. In addition, there is a study lounge for the MPH students to use in the Clark Building at CSU. There is adequate access to classrooms on the CSU campus through a central scheduling system. CSU faculty has office and research space allocated through their home CSU departments across the campus.



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## **UNIVERSITY OF NORTHERN COLORADO**

Gunter Hall houses the MPH concentration in Community Health Education at UNC. Full-time faculty members have individual offices. An additional office space with a workstation accommodates all adjunct faculty. There are work/study areas for students and one conference room designated for staff meetings and student group activities.

Gunter Hall also has the classroom space used by the MPH program. The building houses eight classrooms that seat from 28 to 70 students and an auditorium with a seating capacity of 150. Many of the classrooms are equipped with smart technology and all of the rooms have internet access. Common space for student use is available in a student lounge in Gunter Hall.

### **1.7.E LABORATORY RESOURCES**

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## **CU ANSCHUTZ**

Three core faculty members in Environmental and Occupational Health have 1600 ft<sup>2</sup> of laboratory space in the CU School of Pharmacy building. UNC and CSU neither have nor need laboratory space for the MPH programs.

### **1.7.F COMPUTER FACILITIES AND RESOURCES**

An extensive array of state-of-the-art facilities and equipment is available through the university and School. Below is a list of the different groups that contribute along with their functions and resources.

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## **COLORADO SPH INFORMATION TECHNOLOGY (LOCATED AT CU ANSCHUTZ)**

ColoradoSPH has partnered with the centralized CU Denver/Anschutz Office of Information Technology (OIT) to provide all IT support. Through this agreement, personnel are assigned to the School. This provides support to meet the basic desktop support needs. Specialized services for research or education can also be acquired through this agreement.

To interact and communicate with partner institutions as well as external colleagues and constituents, ColoradoSPH has designed a conference room that offers state-of-the-art technology including a ceiling mounted LCD projector and a wall mounted electronic whiteboard. Using this technology in combination with an online webinar service, ColoradoSPH is able to interact effectively with external colleagues with real-time, rich-media collaborations and presentations. We also have ZOOM accounts to facilitate distance meetings.

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## **JANUS SUPERCOMPUTER (LOCATED AT CU BOULDER)**

Through a joint use agreement, ColoradoSPH researchers have access to the Janus Supercomputer. Janus is specifically designed for massive parallel processing. It contains 16,415 total cores (CPUs) and can perform 814 trillion floating-point operations per second.

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## OFFICE OF INFORMATION TECHNOLOGY (OIT)

CU Denver/Anschutz OIT consists of over 150 IT professionals who provide computing and communications services to the university, and ensures campus compliance with applicable federal, state, and university rules. OIT includes several divisions that directly support ColoradoSPH:

- Technology Support Services (TSS) is the central provider for classroom and conference room technical support and videoconference/video-recording services for CU Denver/Anschutz. TSS is comprised of over 20 technical staff including administrative staff, electronic engineers, electronic specialists, and IT professionals who manage multiple video streaming and other services.
- Academic Technology and Support (ATS) mission is to evaluate, design, develop, and deploy innovative learning technologies, information services, and programmatic solutions. They provide Canvas distance education platforms used to support ColoradoSPH courses and to offer ColoradoSPH courses online.

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## CSU COMPUTING RESOURCES

Academic Computing and Networking Services (ACNS) (<http://www.acns.colostate.edu/Services>) at CSU serves as the primary support for central computing requirements. ACNS manages email, web hosting, and campus calendar services, central servers, and Windows Active Directory root servers. Students, faculty, and staff can access the internet and the CSU server system through wired or wireless connections across the campus. Videoconference and webcast capability are available and used to interact with UNC and CU Anschutz.

Classroom Support Services (CSS) exists to provide classroom technology support, training, repair and upgrade services. The Morgan Library houses the Computer Training and Support Services (CTSS) and provides a centralized IT help desk, computer training programs, and a computer repair center. Free computer training is available to CSU faculty and staff. The Computer Repair Center is available to students, faculty and staff to assist with problems related to viruses, data recovery, hardware replacement, and more. CTSS manages the open computer lab in the Morgan Library, which is available to students, faculty and staff. Each department on campus has additional designated IT support for specific departmental computing, website and other needs.

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## UNC COMPUTING RESOURCES

The university's Information Management and Technology Office operates a state-of-the-art server and manages all systems for direct faculty, staff and student connectivity to the campus network infrastructure. Every faculty and administrative support staff member has a computer in his/her office, directly wired to the university's campus-wide network and to the internet through the college server. There are also two computer labs in Gunter Hall available for student use and instructional purposes. In addition, there is wireless internet access throughout the building.

Computer labs for all students are located throughout the campus with the facility at the university center open extended hours. User-support staff provide the campus community with telephone technical support and software training. Faculty, staff, and students may request information technology assistance from

Information Management and Technology at UNC. Help requests can be completed and submitted online or via telephone.

Faculty and students have access to the university's mainframe computer, which has advanced statistical packages available for data analysis to support faculty and student research endeavors. Faculty, staff and students can also access the Center for the Enhancement of Teaching and Learning (CETL). They offer a variety of technology and software use workshops.

## **1.7.G LIBRARY RESOURCES**

### **CU ANSCHUTZ HEALTH SCIENCES LIBRARY**

All students in the School (regardless of campus) have access to the holdings and services of the CU Denver/Anschutz library system, both in person and online, as a service of the lead institution.

The University of Colorado Health Sciences Library, a major resource for Colorado and the Rocky Mountain region, is housed in a \$35 million facility at the CU Anschutz Medical Campus. The library has a staff of 40 librarians and paraprofessionals, more than 30 collaborative meeting and study spaces, wireless "coffee house" style internet access, and a Computer Commons with 50 computer workstations providing access to MS Office, SAS, SPSS, EndNote, and various instructional software, plus audio/visual resources in online streaming and more traditional formats. In addition to an extensive print journal and book collection, affiliated students, faculty, and staff have on and off campus access to online course reserve readings, more than 23,000 online journals, hundreds of electronic books and databases, and resources such as MEDLINE, Web of Science, The Cochrane Library, and FirstConsult/MDConsult/NursingConsult. A one-stop service desk provides assistance with questions about library services, research consultations, professional search services, book checkout and return, instructional software, computing, email, and technology troubleshooting. A chat and email "Ask a Librarian" service provides remote assistance. HSL librarians regularly conduct individual instruction sessions with students on the use of bibliographic management tools, electronic databases for searching the health sciences literature, and PDAs (personal digital assistants) for mobile health information access. An internet-based world-wide interlibrary loan system is available to faculty and students at no cost.

### **CSU LIBRARIES**

The library buildings are teaching and learning centers, with computer labs as an integral part of library operations. There are online resources as well as assistance for accessing and evaluating information. Library faculty members serve multiple roles in support of teaching and research. Close ties with academic units are strongly encouraged and rewarded.

The libraries coordinate metadata standards and protocols to facilitate navigation, linking, and meta-searching. Searching systems offer seamless access to resources, tailored for novice and expert users, and incorporate new technologies such as personal data devices.

The CSU libraries have three locations - Morgan Library on the CSU campus in Fort Collins, the Veterinary Medical Center (VMC) Library in Fort Collins, located one mile south of the CSU campus, and at the Atmospheric Science Library on the Foothills Campus.

#### Morgan Library:

- 300,000 square feet of research and study space
- 330 computer terminals
- 198 laptops available for checkout
- Five assistive technology rooms
- 10 high-tech presentation rooms and group study spaces
- 2,073,333 printed volumes (books, bound journals, etc.)
- 31,372 current serials (magazines, journals, periodicals)
- 24,106 full-text electronic journals
- 198 databases and research tools

## UNC LIBRARIES

The James A. Michener Library maintains a primary collection of approximately 1.5 million monograph, periodical, government document, audio-visual and microform formats. The library provides an environment and resources for learning, research, and problem solving in the academic community. Library personnel serve the entire range of scholarship through the selection, organization, retrieval, interpretation and conservation of intellectual resources and provide instruction for faculty, staff and students through courses, class sessions, and one-on-one consultations. Furthermore, the School of Human Sciences (where the ColoradoSPH at UNC is located) has a library liaison assigned to each of its program areas.

### 1.7.H OTHER RESOURCES

Not applicable.

### 1.7.I IDENTIFICATION OF MEASURABLE OBJECTIVES THROUGH WHICH THE SCHOOL ASSESSES THE ADEQUACY OF ITS RESOURCES, ALONG WITH DATA REGARDING THE SCHOOL'S PERFORMANCE AGAINST THOSE MEASURES FOR EACH OF THE LAST THREE YEARS

TABLE 1.7.I MEASURABLE OUTCOMES RELATED TO ADEQUACY OF RESOURCES

Objective	Measure	Target	12-13	13-14	14-15
1.3 Provide high quality educational programs in public health	Ratio of student FTE to faculty FTE across all campuses	7.0	3.6	3.4	4.0

### 1.7.J ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET

This criterion is met.

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## **STRENGTHS**

ColoradoSPH is a successful partnership between CU Anschutz, University of Northern Colorado, and Colorado State University. As the lead partner, CU Anschutz exceeds the required number of faculty in all five core areas. All partners have strong infrastructures that include staff, facilities, technical support and libraries.

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## **WEAKNESSES**

The student/faculty ratios (SFR) vary considerably across programs. For the School as a whole, the current ratio is 4.0. However, individual programs range from a low of 1.8 to a high of 12.2. This is partially due to the complexity of calculating SFR at CSU, where ColoradoSPH faculty have university home departments and responsibilities in addition to ColoradoSPH responsibilities. ColoradoSPH students at CSU have access to a broad array of classes, many of which are not taught by ColoradoSPH faculty but address public health competencies. The faculty members teaching those courses were not counted in our SFR calculations. Additionally, students may take classes at each of the partner campuses, so a high SFR in a particular program does not necessarily reflect the actual access of students to faculty in that program. Moreover, there is cross-over in required coursework between concentrations at CSU. For example, students in the Physical Activity and Healthy Lifestyles concentration take required coursework from faculty in the Health Communications concentration.

Two departments at CU Anschutz (Health Systems, Management and Policy and Environmental and Occupational Health) have primary faculty headcounts that barely exceed the minimum required. Health Systems, Management and Policy lost two faculty members in the past two years.

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## **PLANS**

The Health Systems, Management and Policy Department has recruited two new full-time faculty members who will begin on July 1, 2015. Efforts are underway to increase resources for faculty recruitment in the Environmental and Occupational Health department.



## 1.8 DIVERSITY

### 1.8.A WRITTEN PLAN AND/OR POLICIES DEMONSTRATING SYSTEMATIC INCORPORATION OF DIVERSITY WITHIN THE SCHOOL REQUIRED ELEMENTS

The Colorado School of Public Health is committed to creating an educational and work environment that is rich in diversity, inclusive, and supportive of all students, faculty, and staff. The School has a Plan for Inclusion, Diversity and Healthy Equity signed by the leadership of the School (Faculty Senate, Student Council and Executive Council) (Resource File 1.8.a.) and a Diversity & Inclusion work group appointed by the dean. Furthermore, the MOA specifies a responsibility of the School leadership for:

Developing, implementing and evaluating plans and outcomes for enhancement of student and faculty diversity and inclusiveness.

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#### 1.8.A.I DESCRIPTION OF SCHOOL'S UNDER-REPRESENTED POPULATIONS, INCLUDING RATIONALE FOR THE DESIGNATION

The School has identified racial/ethnic minority (African American/Black, Hispanic/Latino, Asian, Pacific Islander, American Indian and Alaska Native), rural background, first generation college undergraduate, and international students as under-represented populations.

**RATIONALE:** The partner universities (CU Anschutz, CSU, and UNC) are state universities and many of our students stay in the state and serve the citizens of Colorado. The racial/ethnic make-up of the state is 70% white (non-Hispanic), 21% Hispanic/Latino, 4% black/African American, 3% Asian, 1% American Indian/Alaska Native, and < 1% Pacific Islander. Of Colorado's 64 counties, 24 are rural and 23 are frontier (fewer than 7 people per square mile), and 77% of the total area of the state is rural or frontier. The need for trained public health professionals serving these areas is great, and thus the need to train students from rural areas is great. Research demonstrates that students from rural backgrounds are the ones most likely to serve these communities long term.

The lead campus, CU Anschutz, resides in Aurora, Colorado, which can be characterized as a low socioeconomic urban/suburban city adjacent to Denver on Denver's eastern boundary, with high minority populations including 16% African American/Black, 29% Hispanic/Latino, and 5% Asian. ColoradoSPH strives to serve the entire state and region. Minority, rural, and first generation college students are underserved in higher education in the state of Colorado and underrepresented in the public health workforce in Colorado. We have further included international students as a goal for enrollment because they will contribute to inter-cultural learning and perspective, and a focus on global as well as regional health, which is critical for the School's mission.

It is generally accepted that a diverse population's health needs can best be served by a diverse workforce (see, for example, Betancourt, Green, Carrillo, and Ananeh-Firempong, "Defining Cultural Competence: A Practical Framework for Addressing Racial/Ethnic Disparities in Health and Health Care." Public Health Reports; 118: 293-302, 2003).

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## 1.8.A.II LIST OF GOALS FOR ACHIEVING DIVERSITY AND CULTURAL COMPETENCE WITHIN THE SCHOOL, AND A SHORT DESCRIPTION OF HOW DIVERSITY-RELATED GOALS ARE CONSISTENT WITH THE UNIVERSITY'S MISSION, STRATEGIC PLAN AND OTHER INITIATIVES ON DIVERSITY, AS APPLICABLE

The School diversity plan includes goals and how they are related to the three partner universities' missions. To fulfill the commitments to diversity and inclusion, the plan addresses five core areas:

1. **INSTITUTIONAL GOAL**- Create and maintain a culturally proficient ColoradoSPH institution through our policies and procedures.
2. **COMMUNITY ENGAGEMENT GOAL**- Create and sustain an environment that fosters input mechanisms to include a wide diversity of broad perspectives from a variety of non-academic and academic communities, and that incorporates the perspective of diverse public groups into the School's work.
3. **CULTURALLY PROFICIENT CURRICULUM GOAL**- Ensure that the curriculum at ColoradoSPH carefully and prominently features teaching material that addresses diversity, inclusion, cultural proficiency and the achievement of health equity.
4. **CULTURALLY COMPETENT RESEARCH GOAL**- Facilitate the conduct of research addressing health equity and health disparities issues.
5. **CULTURALLY COMPETENT PUBLIC HEALTH PRACTICE GOAL**- Promote public health practice and scholarship that addresses diversity, inclusion, cultural proficiency, and health equity.

Each of the goals has underlying objectives designed to provide action steps necessary to meet the goal. The plan has also been mapped back to the CU Denver/Anschutz Strategic Priority 5: Enhance diversity university-wide and foster a culture of inclusion, located at:

[http://www.ucdenver.edu/academics/colleges/medicalschoo/administration/admin\\_offices/DFA/contactinfo/ProDevSeries/Documents/Diversity%20Strategic%20Priority%202014.pdf](http://www.ucdenver.edu/academics/colleges/medicalschoo/administration/admin_offices/DFA/contactinfo/ProDevSeries/Documents/Diversity%20Strategic%20Priority%202014.pdf). Equivalent information for CSU and UNC can be found at <http://diversity.colostate.edu> and <http://www.unco.edu/diversity>, respectively.

The School's plan is consistent with the CU Denver/Anschutz mission, strategic plan, and initiatives on diversity and inclusion as described below.

The mission of CU Denver/Anschutz's Office of Inclusion and Outreach is to provide sustained, comprehensive programs across all educational levels to promote access and increase numbers of underrepresented populations in healthcare, STEM (science, technology, engineering and mathematics), and research professions. The vision of the Office of Inclusion and Outreach is to increase the numbers of underrepresented populations in healthcare, STEM, and research. We will also contribute to a future generation of professionals who aspire to reduce disparities among underserved communities. The university and the School embrace the following values:

- Taking a holistic approach to student engagement
- Addressing health inequities
- Improving cultural sensitivity and responsiveness
- Fostering a welcoming, inclusive environment for the campus community
- Providing mentorship and leadership opportunities through networking and community involvement
- Promoting excellence and innovation



- Bridging underrepresented populations through the P-20 spectrum to healthcare, STEM and research disciplines
- Infusing empowerment by increasing social capital

The School diversity plan goals are also consistent with the School's strategic plan. Strategic Priority #1, Goal 1, Strategy 6 is: Build an inclusive and diverse ColoradoSPH that is reflective of the communities that public health services. Action steps include: a) critically evaluate current system; b) determine enrollment targets; c) actively recruit a diverse student body (see pipeline activities, visit day, scholarship opportunities); d) implement professional development opportunities for staff and faculty related to working with diverse populations, including veterans, minority populations, international students, first generation students, LGBT students, etc.; e) host multicultural events on campuses; f) create organizational structures (e.g., clubs) and/or events to build fellowship and facilitate mentorship among students of color and other student groups.

Faculty, staff, and students at ColoradoSPH are eligible to participate in programs sponsored by the CU Denver/Anschutz Office of Inclusion and Outreach, including the following:

**CHANCELLOR'S DIVERSITY RECOGNITION AWARDS:** The Chancellor's Office and the Office of Inclusion and Outreach at the CU Anschutz Medical Campus recognizes members of the campus community each year for their efforts in promoting and supporting diversity and diversity efforts on our campus and beyond. ColoradoSPH staff member Jennifer Pacheco received this award in 2012.

**ROSA PARKS DIVERSITY AWARDS:** Sparking the modern civil rights movement in the United States by refusing to give up her bus seat, Rosa Parks' arrest for breaking Montgomery segregation laws started a boycott of the city bus line that lasted 381 days. This eventually led to the 1956 Supreme Court ruling declaring segregation illegal on public buses. Faculty, staff, and students are chosen by the Rosa Parks Diversity Committee, in the spirit of Rosa Parks, for their services to the university. Past ColoradoSPH recipients include: staff members Charlene Ortiz and Mary Alice (2010); student Ian Abeyta (2011); and interim director of the Center for Public Health Practice Cerise Hunt (2010).

**PRESIDENT'S DIVERSITY AWARDS:** This annual award recognizes significant achievements of faculty, staff, students and academic or administrative units in developing a culturally diverse, compassionate university community reflective of inclusive excellence. As many as four awards of up to \$2,000 each are given for projects, programs or practices that best reflect the implementation of system and/or campus diversity goals. Past recipients from the ColoradoSPH include Suzuho Shimasaki, DrPH student, in 2014, and Carolyn DiGuseppi, Professor of Epidemiology, in 2009.

**CSU DIVERSITY AWARDS:** Students at CSU are eligible to apply for the CSU Diversity Award. The purpose of the CSU Diversity Award through the Graduate Program in Public Health is to encourage, foster and support diversity within the program and therefore within the public health work force, by promoting inclusivity on all bases, including first generation college student, ethnicity, gender, race, national origin, veteran status, socioeconomic status, age, sexual orientation or different abilities. The individual awards are \$5,000, and are 2-year awards that are disbursed over four semesters to the student's CU Denver/Anschutz account. This award is offered to newly admitted students. Students submit an application to be considered for this funding. All newly admitted students who submit their MPH application by the preferred deadline receive

instructions for how to apply for this award. Between two and four new students per year receive the CSU Diversity Award.

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### **1.8.A.III POLICIES THAT SUPPORT A CLIMATE FREE OF HARASSMENT AND DISCRIMINATION AND THAT VALUE THE CONTRIBUTIONS OF ALL FORMS OF DIVERSITY. THE SCHOOL SHOULD ALSO DOCUMENT ITS COMMITMENT TO MAINTAINING/USING THESE POLICIES**

The CU Anschutz Medical Campus is committed to maintaining a positive learning, working and living environment for its entire community. The university does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status in admission and access to, and treatment and employment in, its educational programs and activities (Regent Law, Article 10). The University will not tolerate acts of sex discrimination and retaliation (CU Anschutz Administrative Policy Statement Sexual Harassment). ColoradoSPH shares this commitment, implementing and enforcing policies that foster a positive learning, working, and living environment.

The partner institutions have similar policies that support a climate free of harassment and discrimination and that value diversity. An overview of each of the campus-specific policies follows.

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#### **COLORADO STATE UNIVERSITY**

Colorado State University is committed to enhancing its diversity through the inclusion of individuals reflective of characteristics such as: age, culture, different ideas and perspectives, disability, ethnicity, first generation status, familial status, gender identity and expression, geographic background, marital status, national origin, race, religious and spiritual beliefs, sex, sexual orientation socioeconomic status, and veteran status. The University's commitment to diversity is a longstanding one that reflects the essential functions of a diverse community, spanning international boundaries, and plays in the furtherance of its role and mission as a land-grant institution.

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#### **UNIVERSITY OF NORTHERN COLORADO**

At UNC, the concept of diversity encompasses acceptance and respect. It means understanding that each individual is unique, and recognizing our individual differences. These can be along the dimensions of race, ethnicity, gender, sexual orientation, socio-economic status, age, physical abilities, religious beliefs, political beliefs, or other ideologies. It is the exploration of these differences in a safe, positive, and nurturing environment that we want to facilitate for all of us. Diversity is about understanding each other and moving beyond simple tolerance to embracing and celebrating the rich dimensions of diversity contained within each individual.

Each ColoradoSPH campus has specific procedures in place to address issues of harassment and discrimination. Additionally, in spring 2015, a working group including personnel from all three campuses began developing a draft policy outlining the tri-campus procedures. The personnel involved include program directors, legal, and Title IX campus coordinators. A first draft has been reviewed by all partners, revisions are with the CU legal team, and a second draft will be sent to UNC and CSU teams for review by mid-September 2015.

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#### **1.8.A.IV POLICIES THAT SUPPORT A CLIMATE FOR WORKING AND LEARNING IN A DIVERSE SETTING**

ColoradoSPH is committed to a working and learning environment that leverages the strengths of our diverse faculty, students, and staff as well as community partners with whom we work. The following objective of the plan addresses this issue.

**OBJECTIVE 1.3.** Provide training and encourage attendance of students (e.g., at orientation) and faculty and staff (e.g., continuing education workshops) addressing cultural proficiency, micro-aggression, health disparities, health equity, recruitment and retention of under-represented minorities, and other topics specific to our needs as identified via data gathering (e.g., climate survey).

In spring 2015, we conducted a social climate survey of faculty, staff and students. The results of the survey will be useful in focusing our efforts in this respect. Results of this survey are available in Resource File 1.8.d(2).

Each of the three partner institutions has faculty development opportunities available at the university level. CSU and UNC have established campus-wide trainings related to diversity and inclusion that are routinely offered. At CU Anschutz, there are no such trainings routinely offered, but they are offered occasionally and on-demand by the associate vice chancellor of diversity and inclusion.

CU Denver/Anschutz Medical Campus: [http://www.ucdenver.edu/faculty\\_staff/faculty/center-for-faculty-development/Pages/default.aspx](http://www.ucdenver.edu/faculty_staff/faculty/center-for-faculty-development/Pages/default.aspx) and [http://www.ucdenver.edu/faculty\\_staff/faculty/center-for-faculty-development/teaching/Pages/DiverseStudents.aspx](http://www.ucdenver.edu/faculty_staff/faculty/center-for-faculty-development/teaching/Pages/DiverseStudents.aspx)

CSU: <http://diversity.colostate.edu/diversity-training/>

UNC: [http://www.unco.edu/cetl/faculty\\_development/](http://www.unco.edu/cetl/faculty_development/)

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#### **1.8.A.V POLICIES AND PLANS TO DEVELOP, REVIEW AND MAINTAIN CURRICULA AND OTHER OPPORTUNITIES INCLUDING SERVICE LEARNING THAT ADDRESS AND BUILD COMPETENCY IN DIVERSITY AND CULTURAL CONSIDERATIONS**

Two specific objectives of the plan address curricula to promote learning and competency in diversity, inclusion and health equity:

**OBJECTIVE 3.1.** Assure that the curricula of all programs contain clear and distinct learning competencies regarding diversity, inclusion, cultural proficiency and the achievement of health equity and indicate which required encompass this material.

**OBJECTIVE 3.2.** Assure that at least one course specifically focused on diversity, inclusion, cultural proficiency or the achievement of health equity is available for students within every degree program and on all campuses of the ColoradoSPH.

In fall 2014, a question was added to the student evaluations of all courses, asking the extent to which issues of health equity, inclusion and diversity were discussed in each course. The question reads, “This class included content about health disparities or health equity in either lectures, discussions, assignments, or

exams,” to which students respond on a 5-point Likert scale from “Strongly Disagree” to “Strongly Agree.” Results are available in Resource File 1.2.b(2).

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### **1.8.A.VI POLICIES AND PLANS TO RECRUIT, DEVELOP, PROMOTE AND RETAIN DIVERSE FACULTY**

The University of Colorado Denver/Anschutz Medical Campus Strategic Plan includes the following goal and related objectives:

#### **GOAL 5.2 RECRUIT AND RETAIN A DIVERSE FACULTY AND STAFF THROUGHOUT THE UNIVERSITY**

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**OBJECTIVE 5.2.1** Increase the number of applications from prospective faculty and staff from diverse and underrepresented areas.

**OBJECTIVE 5.2.2** Offer training programs and leadership development that support recruitment and retention efforts, unearth unconscious biases within the university’s culture, and foster a nurturing environment for people of diverse backgrounds.

**OBJECTIVE 5.2.3** Expect and support an institutional climate of inclusiveness, mutual respect, and understanding.

ColoradoSPH values diversity in its faculty. Announcements of faculty recruitments are distributed in venues where we expect to connect with applicants from underserved groups. All applicants, regardless of race, ethnicity, gender, sexual orientation, age, veteran status, and ability status, are treated equally in the evaluation process. As previously described, all newly appointed faculty members are connected with a faculty mentor to facilitate their success in ColoradoSPH.

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### **1.8.A.VII POLICIES AND PLANS TO RECRUIT, DEVELOP, PROMOTE AND RETAIN DIVERSE STAFF**

The School is committed to enhancing diversity among its staff in accordance with the university’s strategic plan. We hope to increase the number of staff from diverse and underrepresented areas by continuing to support recruitment and retention efforts, unearth unconscious biases within the university’s culture, and foster a nurturing environment for people of diverse backgrounds.

The School does not discriminate on the basis of race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status in admission and access to, and treatment and employment in, its educational programs and activities. The university takes action to increase ethnic, cultural, and gender diversity, to employ qualified disabled individuals, and to provide equal opportunity to all students and employees (Regent Law, Article 10).

We are committed to implementing and enforcing policies that foster a positive learning, working and living environment that does not tolerate acts of sex discrimination and retaliation (CU Anschutz Administrative Policy Statement Sexual Harassment).

All separating staff are invited to participate in an exit interview process to provide feedback on how we are doing as a School. This information is used to improve our culture and our goal for a friendly, safe and productive workplace.

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## **1.8.A.VIII POLICIES AND PLANS TO RECRUIT, ADMIT, RETAIN AND GRADUATE A DIVERSE STUDENT BODY**

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### **OVERVIEW**

ColoradoSPH is actively working to recruit, retain and graduate a diverse student body. All students admitted into ColoradoSPH are assigned an academic advisor to ensure mentorship and advising throughout the academic program. Additionally, we have a faculty director for practice-based learning who works with most MPH and DrPH students on practicum placement and a manager of career and employer relations who works with each student to develop a career plan and a set of materials to build an individual brand.

Recruitment for ColoradoSPH is executed through the Office of Student Affairs. ColoradoSPH utilizes a holistic admissions process. Current efforts to recruit diverse students include: 1) collaborating with undergraduate programs in our state that have a diverse student population, 2) development and support of pipeline programs that encourage under- represented youth to consider and pursue degrees in the health sciences, and 3) outreach to McNair Scholars, TRIO, and Pre-Health Science undergraduate programs.

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### **RECRUITMENT WITH UNDERGRADUATE PROGRAMS**

ColoradoSPH works closely with the CU Denver College of Liberal Arts and Sciences (CLAS) department to recruit undergraduate students in the public health degree in CLAS to attend graduate programs at the School. Currently, all of the core courses in the undergraduate degree are co-taught with faculty from CLAS and ColoradoSPH. This gives undergraduates an opportunity to meet and discuss the graduate program in numerous classroom settings. In addition, ColoradoSPH has hosted visit days for the CLAS public health club as well as recruitment meetings with students in the undergraduate program. The CU Denver campus has a significant percentage (21%) of Hispanic students. Additionally, an undergraduate public health degree was launched in 2012 at Fort Lewis College in Durango, Colorado. Fort Lewis has a tuition waiver program for Native American students. ColoradoSPH has visited with faculty and students in the department and will continue to forge relationships with the faculty and students in the programs.

In addition to our in-state recruitment efforts, we have also attended and presented at the University of California Davis Pre-Health Fair (9,500 undergraduate students with diverse backgrounds in attendance in 2014), and SACNAS (Society for Advancing Chicanos/Hispanics and Native Americans in Science).

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### **PIPELINE PROGRAMS**

The CU Anschutz Medical Campus hosts numerous pipeline programs designed to introduce high school and undergraduate students to the various health science professions. ColoradoSPH is currently involved in the CREATE Health Scholars program, Aurora Lights (a pipeline program through Aurora Public Schools), AHEC Pipeline program working with students in Colorado Springs, CREATE Health Advisors meetings and Colorado Department of Public Health and Environment's Retaining and Recruiting Youth of Color Task Force.

From 2010 – 2012, ColoradoSPH held a Public Health Academy for high school and undergraduate students from traditionally underrepresented populations to introduce public health concepts and areas of research. The Public Health Academy was designed to expand high school and undergraduate students' knowledge of public health in the areas of health promotion, population-based intervention strategies, and disease prevention. Through hands-on learning and group mentoring, the program supported academic achievement as well as public health career awareness. The mission was to enable students of color to explore, pursue and advance in public health professions, to create a more diverse public health workforce better able to serve Colorado and the Rocky Mountain Region. Students were recruited from metropolitan Denver area; in 2012, 17 high school and 10 undergraduate students attended the 3-week program. Unfortunately, due to funding shortfalls, the program was suspended in 2013.

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#### TRAINING GRANT TO PROMOTE DIVERSITY IN RESIDENCY PROGRAM

Dr. Carolyn DiGuseppi currently holds a 5-year, \$2.4 million training grant from the Health Resources and Services Administration with an overall goal to increase the number and diversity of physicians trained in preventive medicine, and to improve the quality and scope of their training, thereby promoting greater access to high quality population health care. Through this grant, the General Preventive Medicine and Public Health Residency Program promotes resident diversity through dissemination of its diversity mission and activities, support for minority visiting faculty lectureships, reduction of financial barriers for minority and disadvantaged applicants through support for interview visits and out-of-state tuition, and participation by program faculty and residents in 'pipeline' activities to encourage disadvantaged students to pursue careers in preventive medicine. Using similar activities to promote diversity, 48% of Program trainees from 2005-12 were from minority or other disadvantaged backgrounds, with 100% retention and graduation.

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#### 1.8.A.IX REGULAR EVALUATION OF THE EFFECTIVENESS OF THE ABOVE LISTED MEASURES

The implementation of ColoradoSPH diversity and inclusion activities falls under the portfolios of various deans. Measures and evaluation/feedback loops for all objectives have been designated in the plan. The program evaluation coordinator of the School is responsible for tracking and documentation of the various measures. The Diversity & Inclusion Workgroup reviews progress at regular intervals as specified for each objective in the plan. The workgroup will consult with each of the designated leads to discuss progress in achieving targets and set new targets as objectives are met.

#### 1.8.B EVIDENCE THAT SHOWS THE PLAN OR POLICIES ARE BEING IMPLEMENTED

While only formally approved by the School in spring 2015, several elements of the plan have been implemented, including the following:

- Courses addressing health equity are in place at each campus (HSMP 6602 at CU Anschutz; CHBH 5350 at UNC; ETST 5100 at CSU).
- The School has an MPH concentration devoted to studying health disparities (Global Health and Health Disparities at CSU).

- Health disparities, diversity, and cultural humility are addressed in the MPH core courses that cover the community and behavioral health area (CBHS 6610, CBHS 6611, CHBH 5090, HESC 5560, and PBHC 5500).
- The core competencies for the MPH and DrPH programs have always addressed health disparities, diversity, health equity, and cultural humility.
- At new student orientation in fall 2014 and 2015, a half-day theatrical workshop was presented on cultural issues in care equity.
- Starting in fall 2014, a question regarding the incorporation of health equity, diversity and inclusion principles into each ColoradoSPH class was incorporated into student evaluations. Results showed that 67% of courses addressed these issues to some degree.
- In spring 2015, we conducted a social climate survey of all faculty, staff and students.
- In summer/fall 2015, we will begin to offer faculty workshops in creating a classroom environment that respects diversity and addresses health disparities. A schedule is provided in Resource File 1.8.b.
- In summer/fall 2015, the school was invited to apply for a Technical Assistance Opportunity grant through Kaiser Permanente, which will provide funding to hire a technical assistance consultant to help us move our diversity and inclusion plan into more specific and time-bound action, and to increase efficiency and sustainability of the Diversity and Inclusion Workgroup. The grant will also provide some funds for execution of activities related to diversity and inclusion. The School has met with two potential technical assistance providers and is now in the process of drafting this proposal.

#### **1.8.C DESCRIBE HOW THE PLAN OR POLICIES WERE DEVELOPED, INCLUDING AN EXPLANATION OF THE CONSTITUENT GROUPS INVOLVED**

This plan was developed with representatives from ColoradoSPH faculty, staff and students as well as alumni, public health practice partners and the University of Colorado Denver/Anschutz associate vice chancellor for diversity & inclusion. The associate dean for public health practice drafted the original commitment to diversity & inclusion plan, dated March 2010. Various departments were implementing pieces of the plan across the School, but not in a unified way. In March 2014, the dean appointed the associate dean for faculty, director of human resources, and the associate dean for student affairs to organize a diversity and inclusion workgroup to review and update the plan. The workgroup was developed in July 2014; the members include ColoradoSPH faculty, staff, students, alumni and public health practitioners. In addition, public health practitioners and the University of Colorado Denver/Anschutz vice chancellor for diversity and inclusion are members. The workgroup has met three times in-person to update the plan (August 2014, September 2014, and November 2014) and has worked on drafts via email. The updated plan was presented to the Executive Council (March 2015) and Faculty Senate (April 2015). The workgroup will develop by-laws and a leadership structure to ensure that the workgroup is sustainable over time. At the end of every year the workgroup will provide a report to the dean summarizing progress made in achieving the goals and objectives outlined in the plan. Recommendations from the report will be shared with the dean for discussion and action planning.

#### **1.8.D DESCRIPTION OF HOW THE PLAN OR POLICIES ARE MONITORED, HOW THE PLAN IS USED BY THE SCHOOL AND HOW OFTEN THE PLAN IS REVIEWED**

The Diversity and Inclusion Workgroup is the body designated by the dean to provide a structure for planning, implementing, monitoring, and evaluating ColoradoSPH's work toward meeting the commitment to diversity and inclusion. Objective 1.1 of the plan specifically addresses the establishment, ongoing monitoring, and



updating of the plan. The plan has five goal areas, with assigned leadership overseeing each of these goals. The workgroup will meet twice a year to monitor the plan. As stated in Objective 1.1, the plan will be reviewed and revised on a yearly basis. The intention is that the plan will be a living document.

In spring 2015, ColoradoSPH opened a social climate survey to faculty, staff, and students across all three of our campuses. The anonymous survey was developed over the course of several months with input from a working group of students, staff, and faculty, with additional feedback solicited from others outside the working group. The final survey contained a broad range of questions about perception of school leadership, observed frequency of discriminatory or derogatory behaviors on campus, friendliness and inclusion in social settings, comfort around engaging in crucial conversations, and perception of ColoradoSPH's support of diversity efforts. The survey also included, on each of its eleven pages, at least one box for open-ended comments or suggestions for the School. A copy of this survey can be found in Resource File 1.8.d(1).

Of the 370 individuals who responded to this survey, 309 were based at Anschutz, 52 at Colorado State University, and nine at University of Northern Colorado. In total, six were administrators, 189 were students, 120 were faculty, and 50 were staff. Below is an overview of results representing areas in which ColoradoSPH excels, and areas in need of improvement. A full report of survey results is in Resource File 1.8.d(2).

#### AREAS OF SUCCESS

- 91% of respondents agree that ColoradoSPH has a friendly environment.
- 92% of respondents agree that ColoradoSPH is welcoming to all people.
- 96% of respondents indicated that they place a high value on diversity.
- 97% indicated that they believe cultural understanding is important in their career.

#### OPPORTUNITIES FOR IMPROVEMENT

**ACTIONS TO SUPPORT DIVERSITY:** Qualitative responses reveal a belief that, though ColoradoSPH places high rhetorical value on diversity, this emphasis is not often carried into action. Though one does exist, only 65% of respondents indicated that they were aware of a written ColoradoSPH diversity plan that includes goals and policies aimed at promoting diversity and inclusion.

**RAISING CONCERNS OF DIVERSITY AND INCLUSION:** 53% of respondents indicated that they do not know where to report instances of discrimination and harassment within ColoradoSPH. Further analysis revealed that, among staff, 29% would feel “not at all comfortable” raising concerns related to diversity and inclusion to school leaders (compared to 11% of students and 9% of faculty). This finding warrants further investigation.

**FEELING SINGLED OUT:** An area of concern is the experience of feeling “singled out” in ColoradoSPH settings, defined in the evaluation instrument as being “asked to speak for an entire group to which you belong (or are presumed to belong) based on things such as race/ethnicity, sexual orientation, political views, religious beliefs, age, or something else.” Eighteen percent of students indicated feeling occasionally (n=37), often (n=11), or always (n=2) singled out, and cited a variety of reasons, including race/ethnicity, sexual orientation, race, socioeconomic status, and disability status. This phenomenon of feeling singled out or isolated, particularly in a classroom setting, was echoed elsewhere throughout qualitative responses to the survey.



**WITNESSING DISPARAGING COMMENTS:** Respondents were asked about occasions in which they had heard faculty members, students or staff make disparaging comments about a number of social groups. The most common targets of these comments were women and those with conservative political views. A second tier included racial/ethnic minority groups, international students, and English as a second language learners. The group most commonly witnessed to make disparaging comments was faculty.

**STAKEHOLDER SUGGESTIONS:** Throughout the survey, respondents offered suggestions for addressing the issues they raised. These suggestions ranged widely in scope, from the use of a more diverse group of caterers for ColoradoSPH events to major changes in curriculum to include mandatory health equity courses. The comments included frequent mention of opportunities to engage in training and dialogue around issues of privilege, equity, and diversity, greater focus on recruiting and retaining more a more diverse student, staff, and faculty body, and formation of extracurricular groups for students with minority identities.

### **1.8.E IDENTIFICATION OF MEASURABLE OBJECTIVES BY WHICH THE SCHOOL MAY EVALUATE ITS SUCCESS IN ACHIEVING A DIVERSE COMPLEMENT OF FACULTY, STAFF AND STUDENTS ALONG WITH DATA REGARDING THE PERFORMANCE OF THE PROGRAM AGAINST THOSE MEASURE FOR EACH OF THE LAST THREE YEARS**

Table 1.8.e(1) provides the self-identified outcome measures required. In addition, Table 1.8.e(2) shows other diversity-related outcome measures pertaining to success of students from under-represented groups.

TABLE 1.8.E(1) (TEMPLATE 1.8.1) SUMMARY DATA FOR FACULTY, STUDENTS AND/OR STAFF

Category/Definition	Method of Collection	Data Source	Target	2012-13	2013-14	2014-15
Faculty-Racial or ethnic minority <sup>1</sup>	Self-report	Human Resources	20%	28%	27%	24%
Students-Racial or ethnic minority <sup>1</sup> (newly enrolled in each year)	Self-report	Program Application	30%	21%	23%	26%
Students-Rural, first generation college, and international (newly enrolled in each year) <sup>2</sup>	Self-report	Program Application or survey <sup>3</sup>	25%	6% Int'l	0% Int'l 19% 1 <sup>st</sup> Gen	19% Rural; 4% Int'l; 19% 1 <sup>st</sup> Gen
Staff-Racial or ethnic minority <sup>1</sup>	Self-report	Human Resources	30%	30%	29%	27%

<sup>1</sup> Racial-ethnic minority is defined as African America/Black, Hispanic/Latino, Asian, Pacific Islander, American Indian, Alaska Native

<sup>2</sup> Data on 1<sup>st</sup> generation status was not available until 2013-14; rural status was not available until the 2014-15 academic year

<sup>3</sup> Because survey data is anonymous, reported numbers for rural background, first generation college attendance, international student status, may include overlap from students who fit into multiple categories.

TABLE 1.8.E(2) MEASURABLE OUTCOMES RELATED TO DIVERSITY AND INCLUSION

Objective	Measure	Target	2012-2013	2013-2014	2014-2015
1.9 Build an inclusive and diverse ColoradoSPH that is reflective of the communities that public health serves	Percent of applicants from underserved backgrounds	Racial/Ethnic – 30%	27%	23%	26%
		International – 7%	5%	6%	10%
		1 <sup>st</sup> Generation Undergrad (MPH/DrPH) – 15%	17%	16%	16%
		Rural – 20% <sup>1</sup>	Unav.	Unav.	Unav.
	Ratings on health equity in courses and inclusiveness in culture	5.0/7.0	5.7	5.8	5.7
	Graduation rates of underserved students(racial/ethnic) in MPH/MS programs (within 5 years)	MPH>80%	100%	88%	92%
		MS >80% <sup>2</sup>	n/a	n/a	67%
	Graduation rates of underserved students (racial/ethnic) in DrPH/PhD programs (within 7 years)	DrPH>80%	n/a	n/a	n/a
		PhD >80% <sup>2</sup>	n/a	n/a	100%
1.9 Build an inclusive and diverse ColoradoSPH that is reflective of the communities that public health serves	Job placement/ continued education rates of underserved graduates (racial/ethnic) within 12 months of graduation	>90%	100%	95%	100%
	Scholarships awarded to students from underserved backgrounds	\$200,000	\$55,549	\$105,578	\$109,414

<sup>1</sup> Unav. indicates that the data are not available; in this case, the data are not available for program applicants, only for matriculated students.

<sup>2</sup> Items marked n/a indicate that there were no students from underserved racial/ethnic groups in that cohort

## 1.8.F THE EXTENT TO WHICH THIS CRITERION IS MET

This criterion is met with commentary.

### STRENGTHS

ColoradoSPH is committed to creating an environment that embraces diversity, inclusiveness, and promotes health equity. A written plan outlining specific and evaluable activities to meet goals and objectives has been

established and approved by the governing bodies of the School. Although the plan was only recently updated, several elements of the plan were already firmly in place. Our ability to strengthen student enrollment diversity is enhanced by the presence of two research and policy centers, the Centers for American Indian and Alaska Native Health and the Latino/a Research and Policy Center. These centers provide opportunities for students to gain experience and understanding of health disparities experienced by these underrepresented minorities and research efforts directed at addressing these issues. We have recently completed a survey of our social climate, which has revealed some positive findings as well as some opportunities for improvement. We have a workgroup in place to guide the School with respect to diversity issues.

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## **WEAKNESSES**

Funding constraints required the suspension of a School supported summer pipeline program focused on underrepresented students. Funding constraints also contribute to higher than desired tuition. This tuition level combined with limited scholarship support for students make it hard to compete for students who need more financial support. We have not met our goal of providing scholarships to students from diverse backgrounds. Due at least in part to these issues, we have not achieved the level of diversity that we would like.

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## **PLANS**

The diversity plan includes the following plans:

- To provide training for faculty, staff and students addressing cultural proficiency, micro-aggression, health disparities, health equity, recruitment and retention of under-represented minorities, and other topics as identified in our social climate survey. This will be initiated in the 2015-16 academic year. A schedule of events for faculty is in Resource File 1.8.b. In summer/fall 2015, the school was invited to apply for a Technical Assistance Opportunity grant through Kaiser Permanente, which will provide funding to hire a technical assistance consultant to help us move our diversity and inclusion plan into more specific and time-bound action, and to increase efficiency and sustainability of the Diversity and Inclusion Workgroup. The grant will also provide some funds for execution of activities related to diversity and inclusion. The School has met with two potential technical assistance providers and is now in the process of drafting this proposal.
- To develop faculty evaluation, promotion and tenure criteria to explicitly recognize community-based service/scholarship, and health disparities/diversity/inclusion related activities. A proposal will be developed in the 2015-16 academic year and implemented in the 2016-17 academic year.
- To develop staff evaluation criteria to explicitly recognize diversity/inclusion related activities in work activities. A proposal will be developed in the 2015-16 academic year and implemented in the 2016-17 academic year.
- As new members are added, each ColoradoSPH advisory committee will have diverse representation and be asked to annually evaluate their effectiveness, function and mission and to assess whether diversity and inclusion goals are being achieved.
- The associate dean for research will: a) help faculty identify appropriate funding opportunities to facilitate research on health disparities and health equity, b) create means of assisting department

chairs and faculty in designing studies and programs of research to incorporate a focus on these topics into their research agendas, and c) develop a baseline inventory of projects and usable metrics for long term evaluation of progress in increasing attention to these topics within the research programs of our faculty.

- Continued efforts to increase enrollment of students from under-represented groups will be implemented as outlined above in section 1.8.a.viii.
- One approach under consideration to increase retention of students from under-represented groups is to pair students with a mentor from the public health workforce. This was suggested in our recent employer key informant interviews.
- Each ColoradoSPH campus has specific procedures in place to address issues of harassment and discrimination. Additionally, in spring 2015, a working group including personnel from all three campuses began developing a draft policy outlining the tri-campus procedures. The personnel involved include program directors, legal, and Title IX campus coordinators. A first draft has been reviewed by all partners, revisions are with the CU legal team, and a second draft will be sent to UNC and CSU teams for review by mid-September 2015.
- Our plans to meet financial aid targets for underrepresented student groups, include the combination of philanthropy, training grants (e.g., underrepresented supplements to research grants), and dedication of School resources as our financial status improves.

# Instructional Programs

# 2.0



Located in Fort Collins, Colorado, the Colorado State University campus offers six academic programs, personalized interaction with faculty members, and front-door access to the front range of the Rocky Mountains.



## 2.0 INSTRUCTIONAL PROGRAMS

### 2.1 DEGREE OFFERINGS

#### 2.1.A INSTRUCTIONAL MATRIX

The Colorado School of Public Health offers a total of 24 concentration options in the Master of Public Health degree, three Master of Science degrees, the Doctor of Public Health in three focus areas, and three Doctor of Philosophy degrees. Dual professional degrees with the MPH are currently offered in five areas, with four additional areas in planning. One program, the MPH in Leadership and Public Health Practice, is offered primarily online, with in-person meetings required only for the leadership course, during 2-3 concentrated days each semester for the first year of study.

TABLE 2.1.A (TEMPLATE 2.1.1) INSTRUCTIONAL MATRIX

	Location	Type of Program	
		Academic	Professional
<b>Master's Degrees</b>			
<b>Concentration/Specialization</b>			
MPH in Animals, People and Environment	CSU		X
MPH in Applied Biostatistics	CU		X
MPH in Community and Behavioral Health	CU		X
MPH in Community Health Education	UNC		X
MPH in Community Health Education plus Healthy Aging	UNC		X
MPH in Environmental and Occupational Health	CU		X
MPH in Epidemiology	CU and CSU		X
MPH in Global Health and Health Disparities	CSU		X
MPH in Global Public Health plus Applied Biostatistics	CU		X
MPH in Global Public Health plus Community and Behavioral Health	CU		X
MPH in Global Public Health plus Community Health Education	UNC		X
MPH in Global Public Health plus Environmental and Occupational Health	CU		X
MPH in Global Public Health plus Epidemiology	CU		X
MPH in Global Public Health plus Health Systems, Management and Policy	CU		X
MPH in Global Public Health plus Maternal and Child Health	CU		X
MPH in Health Communications	CSU		X
MPH in Health Services Research	CU		X
MPH in Health Systems, Management and Policy	CU		X

	Location	Type of Program	
		Academic	Professional
MPH in Health Systems and Management	CU		X
MPH in Leadership and Public Health Practice (online)	CU		X
MPH in Maternal and Child Health	CU		X
MPH in Physical Activity and Healthy Lifestyles	CSU		X
MPH in Public Health Nutrition	CSU		X
MPH with generalist/custom concentration	CU		X
MS in Biostatistics	CU	X	
MS in Epidemiology	CU	X	
MS in Health Services Research, Policy and Administration	CU	X	
<b>Doctoral Degrees</b>			
<b>Specialization/Concentration/Focus Area</b>			
DrPH in Community and Behavioral Health	CU		X
DrPH in Environmental and Occupation Health	CU		X
DrPH in Epidemiology	CU		X
PhD in Biostatistics	CU	X	
PhD in Epidemiology	CU	X	
PhD in Health Services Research	CU	X	
<b>Dual Degrees</b>			
<b>Secondary area</b>			
Doctor of Veterinary Medicine (DVM)/MPH	CSU		X
Doctor of Medicine (MD)/MPH	CU		X
Doctor of Nursing Practice (DNP)/MPH	CU		X
Master of Public Administration (MPA)/MPH	CU		X
Master of Urban and Regional Planning (MURP)/MPH	CU		X
Master of Social Work (MSW)/MPH	CU&DU (fall 2016-17) CSU (fall 2016-17)		X
Doctor of Pharmacy (PharmD)/MPH	CU (in development)		X
Doctor of Dental Surgery (DDS)/MPH	CU (in development)		X
Juris Doctor (JD)/MPH	CU (in development)		X

## 2.1.B DESCRIPTIONS FOR EACH EDUCATIONAL PROGRAM CAN BE FOUND AT THE FOLLOWING LINKS TO THE COLORADOSPH WEBSITE

TABLE 2.1.B LINKS TO DESCRIPTIONS OF EDUCATIONAL PROGRAMS

Program	Link
Master's of Public Health Concentrations (MPH)	<a href="http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/mph.aspx">http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/mph.aspx</a>
Master's of Science Programs (MS)	<a href="http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/ms.aspx">http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/ms.aspx</a>
Doctor of Public Health Focus Areas (DrPH)	<a href="http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/DrPH.aspx">http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/DrPH.aspx</a>
Doctor of Philosophy Programs (PhD)	<a href="http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/phd.aspx">http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/phd.aspx</a>
Dual Degree Programs	<a href="http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/JointDegrees.aspx">http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/JointDegrees.aspx</a>



Examples of student work from various degree programs can be found in Resource File 2.1.b(1). Curriculum check sheets for each MPH concentration, DrPH focus area and MS program can be found in Resource File 2.1.b(2). Curriculum for the PhD programs can be found in section 2.12.d of the self-study. All curriculum requirements can be accessed through the following link:  
<http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/index.aspx>

Instructions for accessing all curriculum requirements through the website can be found in Resource File 2.1.b(3).

### **2.1.C EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met.

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#### **STRENGTHS**

ColoradoSPH offers the required MPH concentrations in the five core knowledge areas of public health, as well as other areas based on the interests of students and faculty expertise. The School offers six doctoral programs that encompass all five core areas of public health with either the DrPH (professional) or PhD (academic) degree or both. Many options are available for students to combine areas of interest (for example, global public health with other areas of public health, or an MPH with another professional degree such as a Master's in Urban and Regional Planning).

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#### **WEAKNESSES**

None.

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#### **PLANS**

The combination of an MPH with another professional degree results in public health professionals who can work effectively across disciplines and potentially improve population health in unexpected ways. Plans are underway to expand our dual degree options to the PharmD, DDS and JD at CU, MSW at CSU, and MSW at CU in conjunction with the University of Denver, a private university. The dual degrees with PharmD, DDS and JD will be relatively straightforward and can follow the basic structure of the MD/MPH and DNP/MPH. The establishment of the MSW/MPH in conjunction with the University of Denver will need to overcome unique challenges because the University of Denver is not one of the partner institutions in ColoradoSPH, nor is it part of the public university system in Colorado (see MSW-MPH dual degree plan in Resource File 2.1.c). Major differences include tuition, academic calendar (University of Denver is on the quarter system, while the three ColoradoSPH collaborating institutions are on the semester system), and the campus is approximately 15 miles from the CU Anschutz campus. The leadership at ColoradoSPH is partnering closely with the leadership at the University of Denver to facilitate the collaboration. This effort will provide a new educational opportunity for students in the Denver area (central Colorado), while the MSW/MPH at CSU will provide that opportunity in Ft. Collins (Northern Colorado). We expect all of these new dual degree programs to be in place by the 2017-18 academic year.



## 2.2 PROGRAM LENGTH

### 2.2.A DEFINITION OF A CREDIT HOUR

One credit hour is the equivalent of one in-class period of 50 minutes per week for a 15-week semester, with an estimated time outside of the classroom of 2-3 hours per week for 15 weeks, or 30-45 hours total outside of class. The dual MSW-MPH degree is a collaboration with the University of Denver, which is on the quarter system. One credit hour on the quarter system is the equivalent of one hour per week for ten weeks. Quarter credits are converted to semester credits by multiplying the credits by 0.667.

### 2.2.B MINIMUM DEGREE REQUIREMENTS FOR THE MPH

All MPH concentrations require a minimum of 42 credit hours, and some concentrations require a higher number of credits because of a greater level of specialization in a particular area or combination of areas. The total of 42 credits is comprised of 17 credits of required core courses for all MPH students regardless of concentration (3 credits each of biostatistics, epidemiology, community and behavioral health, environmental and occupational health, and health systems, management and policy). Additionally, a 2-credit course in foundations in public health is required. All concentrations require a minimum of 12 credit hours specific to the concentration. All MPH students are required to complete a 2-credit practicum experience and a 2-credit capstone project. The balance of credits is made up of elective credits, to equal at least 42 credits.

The following MPH concentrations require more than 42 total credit hours:

- The MPH in Health Services Research requires a minimum of 43 credit hours.
- The MPH “Global Public Health Plus” concentrations require a minimum of 45 credit hours.

All dual degree students complete 42 credits to be applied to the MPH degree. Efficiency is achieved in the dual degree programs through applying some credits (usually 9 credits, but as low as 7 and up to 14 credits) from the other degree to the MPH. In most cases, credits from the other degree are only applied to MPH elective credits. For the DVM/MPH is there a deviation, where for three concentrations (Animals, People and the Environment, Epidemiology, and Global Health and Health Disparities) selected courses may be applied to concentration requirements as well as electives. For the DNP/MPH, in addition to elective credits, the practicum and capstone credits are drawn from the DNP program, with incorporation of MPH competencies into these activities. For the MSW dual degrees, there is also sharing of practicum and capstone credits. The sharing of credits for the dual degrees is discussed in detail in section 2.13.

### 2.2.C MPH DEGREES AWARDED FOR LESS THAN 42 CREDITS IN PAST 3 YEARS

No MPH degrees were awarded for less than 42 credit hours in the past 3 years.

### 2.2.D EXTENT TO WHICH THIS CRITERION IS MET

This criterion is met.

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## **STRENGTHS**

All MPH programs require at least 42 credit hours.

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## **WEAKNESSES**

None.

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## **PLANS**

Our plan is to maintain careful oversight of the sharing of credit hours between programs in the dual degree options to assure that students attain adequate depth in public health while achieving efficiency in the completion of two degrees.

## 2.3 PUBLIC HEALTH CORE KNOWLEDGE

### 2.3.A MEANS BY WHICH ALL GRADUATE PROFESSIONAL DEGREE STUDENTS ACHIEVE COMPETENCE IN THE AREAS OF KNOWLEDGE BASIC TO PUBLIC HEALTH

All MPH students are required to take a course (or courses) in each of the five core areas of knowledge that address the competencies adopted by the School for that area. All departments/campuses offer an introductory core course that accomplishes this objective, shown in Table 2.3.a below.

TABLE 2.3.A (TEMPLATE 2.3.1) COURSES TO ADDRESS CORE COMPETENCIES

Core area	UCD	UNC	CSU	Credit Hours
Biostatistics <sup>1</sup>	<b>BIOS 6601</b> Offered: Summer, Fall, (Online in Summer, Fall)	<b>CHBH 6120</b> Offered: Spring	<b>EDRM 6060</b> Offered: Fall, Spring or <b>VSCS 6620</b> Offered: Spring, selected years	3
Epidemiology	<b>EPI 6630</b> Offered: Fall, Spring (Online in Spring)	<b>CHBH 6200</b> Offered: Fall	<b>ERHS 5320</b> Offered: Fall	3
Environmental Health	<b>EHOH 6614</b> Offered: Fall, Spring (Online in Spring)	<b>CHBH 5500</b> Offered: Spring	<b>ERHS 5200</b> Offered: Fall	3
Community and Behavioral Health <sup>2</sup>	<b>CBHS 6610</b> Offered: Summer, Spring (Online in Summer)	<b>CHBH 5090</b> Offered: Fall	<b>HESC 5560</b> Offered: Fall or <b>PBHC 5500</b> Offered: Fall, Spring	3
Health Care Systems <sup>3</sup>	<b>HSMP 6601</b> Offered: Summer, Spring (Online in Summer)	<b>CHBH 6350</b> Offered: Fall	<b>HSMP 6601</b> Offered through UCD at CSU campus in Spring	3
Foundations in Public Health	<b>PUBH 6600</b> Offered Summer, Fall, Spring (Online in Summer, Fall, Spring; In-person in Summer, Fall)	<b>PUBH 6600</b> Offered through UCD online in Summer, Fall, Spring	<b>PBHC 5160</b> Offered: Fall	2

<sup>1</sup> Students may opt to complete a higher level introduction to Biostatistics, BIOS 6611

<sup>2</sup> Students in Community and Behavioral Health (CBH and MCH concentrations) take CBHS 6611

<sup>3</sup> Students in MPH concentrations in Health Systems, Management and Policy take a series of courses that include the components of HSMP 6601

Equivalency across the courses offered by each of the three campuses was established through a process that utilized the established competencies for each core area and included the following steps:

A committee was established comprised of the course instructors for each of the courses, the concentration director for the core area, and in some cases, the associate dean for academic affairs. Syllabi were gathered from the three campuses and distributed to committee members. A review form was prepared for each instructor to indicate the degree to which they address each of the area's core competencies. Instructors indicated whether they: 1) significantly discuss in class; 2) incorporate into homework or group projects; or 3) include in tests or individual projects. Differences in the degree to which each competency is integrated into each course were discussed in a meeting of the committee. Where any significant differences existed that were deemed unacceptable, instructors agreed to enhance their approach to addressing the relevant competency. For example, for the core biostatistics course, it was noted that a CSU instructor was not routinely providing instruction/activities on use of statistical software. This instructor assured that he would systematically integrate this into his course and revise his syllabus accordingly. More recently, both the CSU and UNC faculty have created separate biostatistics courses for public health students and fully adopted the syllabus used by the CU Anschutz campus. The same is now true for the core course in health systems management and policy. Documentation of this process is in Resource File 2.3.a.

As noted in the footnote to the above table, there are some exceptions to the core course designations. Students in the Community and Behavioral Health department (including the CBH and MCH concentrations) are exposed to the competencies of CBHS 6610 in multiple required concentration courses. Thus, CBHS 6611 (Foundations of Health Behavior) serves as the core community and behavioral health course for these students. This substitution is also made for a limited number of other students who, because of their backgrounds, would be better served by a course that goes into greater depth in social science theory and its contribution to public health. Students in the Health Systems, Management and Policy department are in a similar situation. The core MPH competencies in the Health Systems area are addressed across multiple courses for these students, including HSMP 6604 (Health Care Economics), HSMP 6605 (Health Policy), HSMP 6609 (Cost Benefit/Effectiveness), and HSMP 6612 (Principles in Health Care Management). These students take 16 credits in their concentration (as compared to the usual 12 credits) to account for the distribution of core MPH competencies across these courses. Finally, any student with the prerequisites (one semester of calculus) may opt to take a higher level introduction to biostatistics (BIOS 6611: Biostatistics Methods I). Occasionally, students enter the MPH program having already taken an introductory course in one of the core areas. In this event, the syllabus for the course taken is carefully reviewed by the relevant course instructor and the associate dean for academic affairs. If the course is determined to cover the competencies in that area, the student can petition to take a higher level course in that area.

Students are required to attain a B- or better in the core courses. A grade below a B- requires retaking the course and attaining at least a B-. Overall, students must maintain at least a B (3.0) grade point average to graduate.

DrPH students generally enter the doctoral program with an MPH and have therefore previously taken coursework in the core knowledge areas. If a student enters with a master's degree in another area, the student's previous coursework is reviewed to determine what core areas must be addressed as co-requisites (i.e., early during their career in the DrPH program, the student takes the necessary MPH core courses in any

areas not explicitly covered at the graduate level in their prior training). All DrPH students also take 4 credits of DrPH Seminar (PUBH 6842), one credit each semester for their first four semesters, which is an integrative course addressing DrPH core competencies in public health.

### **2.3.B EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met with commentary.

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#### **STRENGTHS**

ColoradoSPH has established a strong set of core public health competencies that have guided development of strong core courses, which all professional students take. The School has taken care in evaluating equivalency of core courses across instructors and campuses through a systematic review. The core MPH courses are offered multiple times each year and at least once a year there is an online offering. Through these multiple offerings, we provide maximum access for students.

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#### **WEAKNESSES**

The issue of equivalency across campuses has presented challenges, both in relation to assuring course content and quality, and in qualifications of instructors. Less favorable student evaluations for some course offerings are evidence of this challenge. This issue has been especially difficult at the non-lead campuses (CSU and UNC) where the core courses have sometimes been delivered by departments not under the direct control of ColoradoSPH. This has recently been addressed by faculty at CSU and UNC by bringing the core classes under the direct control of the MPH programs at those campuses.

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#### **PLANS**

At CSU and UNC, starting fall 2015, all core courses will be taught within the public health programs at those campuses, assuring equivalence of syllabi and content. There is ongoing collaboration between faculty at the three campuses with regard to course delivery to assure quality and equivalency.





## 2.4 PRACTICAL SKILLS

### 2.4.A DESCRIPTION OF THE SCHOOL'S POLICIES AND PROCEDURES REGARDING PRACTICE EXPERIENCES

All MPH concentrations and DrPH focus areas in ColoradoSPH require students to successfully complete a practicum experience in which the student demonstrates competencies and integrates public health knowledge. ColoradoSPH has a designated practice-based learning (PBL) team made up of a faculty director of practice-based learning (CU Anschutz) and two PBL coordinators (CSU/UNC). The goals of the practicum are to:

- Apply classroom theory, knowledge, skills and techniques to a professional work setting
- Enhance and develop new skills needed to function as a professional in a public health setting
- Work on a specifically defined public health problem or issue project that is salient to the host site
- Participate in a setting that allows the student to explore future career options
- Engage in professional self-assessment and personal reflection
- Build a personal network of professional leaders in public health
- Connect with local and state public health agencies and other community-based organizations that serve the public's health to create support for the public health community and future recruitment opportunities

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#### MPH PRACTICUM

Prior to enrolling in the 2-credit MPH practicum course (PUBH 6606 at CU, PBHC 6860 at CSU, or CHBH 6930 at UNC) students must meet the following prerequisites:

- Successfully complete the CU Anschutz Foundations of Public Health course (PUBH 6600) or CSU Public Health Foundations (PBHC 5160)
- Successfully complete 18 credits including a minimum of three of the core courses
- Gain approval from their concentration director or academic advisor, and PBL coordinator

The practicum course is a 2-credit course. At a minimum, the practicum experience consists of 120 hours of field experience at a pre-approved host site with a pre-approved learning plan. The actual course is offered either as an in-person or a hybrid course that includes logbooks and reflection activities at designated intervals; an organizational overview paper; a midpoint evaluation with the preceptor; a final evaluation with the preceptor; a student evaluation of the process and host site; and a practicum portfolio that provides an overview and self-reflection of the experience. All three campuses use the same evaluation tools (mid-point, final, and student evaluation). See Resource File 2.4.a(1).

Prior to logging hours at the host site, students must complete HIPAA (Health Insurance Portability and Accountability Act) and human subjects protection training, a site placement agreement and a learning plan. The concentration director or academic advisor and the PBL team must approve the host site, placement

agreement, and the learning plan. The learning plan includes a pre-defined project that will assist the host organization in addressing an unmet need while supporting student growth in developing skills in public health practice. The plan identifies the competencies each student will address in their individual experience.

The Office of Student Affairs, along with the PBL team, launched an online tool in 2014 (ColoradoSPHConnect.com) that supports students, faculty and community members in identifying PBL experiences as well as volunteer and career opportunities. Through ColoradoSPHConnect.com, students and advisors are able to communicate and document their advising interactions as they pertain to practice-based learning. Additionally, preceptors are able to advertise the opportunities they have available for practicum experiences and identify the most appropriate matches between projects and students.

Additional details from each of the three campuses are outlined below.

**CU ANSCHUTZ:** At the CU Anschutz Medical Campus, the faculty director of PBL holds a practicum orientation meeting at least once each semester. There is also an online powerpoint presentation (Resource File 2.4.a(3)) and video of this session on the School's YouTube channel at <https://www.youtube.com/watch?v=29MnTQgEEzU>. Students planning to take their practicum in the next semester are required to attend, watch the video, or set up a one-on-one meeting with the faculty director of PBL. During the semester of enrollment, the practicum students have two in-person meetings, one at the beginning of the experience and one mid-way through the semester. CU students also participate in an online course on the Canvas LMS. The online course has seven self-guided assignments including: 40-hour analytic journal and logbook, 60-hour mid-point review of the student by the preceptor, 80-hour analytic journal and logbook, 120-hour logbook, and 120-hour final review of the student by the preceptor. Also included is a final online portfolio that includes self-reflection, a sample of the student work, and a resume. The student also completes an evaluation of the practice-based learning process at ColoradoSPH, and the host site. MPH practicum materials can be found in Resource File 2.4.a(1).

**CSU:** The minimum number of hours for the CSU practicum experience is also 120. The CSU students are required to submit a logbook and journal every 20 hours. Also required is a final 2-page paper on the structure of the organization/host site.

**UNC:** The UNC practicum has a minimum requirement of 150 field hours. UNC practicum students meet in person as a group with the instructor throughout the semester to monitor progress and students submit a reflective journal after each 50 hours of work completed. UNC students also submit a final portfolio/paper and presentation at the end of the experience.

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## DRPH PRACTICUM

All DrPH students must engage in a minimum of 240 hours of fieldwork (PUBH 6850-4 credit hours). The fieldwork experience has a focus on leadership skills and the core DrPH competencies. Students are advised to begin their practicum after they have completed the management and leadership course requirements and 24 credit hours of their program. Each student identifies a faculty advisor for the practicum project and a community preceptor. These two individuals will serve to support the student in the development of the practicum proposal, the implementation of the experience, and completion of the scope of work. In conjunction with their preceptor and faculty advisor, students develop project goals and objectives that are

appropriate for each individual DrPH student's academic and career goals, focusing on the practice of advanced skills and knowledge, and providing evidence of achieving the competencies associated with their DrPH degree. Students complete a practicum proposal in which they outline the activities of the experience, the competencies addressed, and how their progress will be evaluated.

It is the student's responsibility to investigate and develop practicum opportunities, and ColoradoSPH's PBL learning team supports students in discovering potential host sites. The proposed host site and practicum experience must meet the School's requirements for an appropriate public health practice experience. Examples of appropriate practicum sites include, but are not limited to, federal public health agencies (i.e., the CDC, HRSA, and NIH), state and local health departments, community-based organizations, non-profit organizations, private industry, community hospitals, and other organizations involved in public health work. In selecting a community preceptor, it is a goal that the student will have a preceptor with training and a degree beyond the master's level and/or demonstrated leadership and management experience in public health practice. DrPH practicum materials can be found in Resource File 2.4.a(2) and at: [http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Academic and Student Affairs Forms/DrPH Practicum Packet 2014.docx](http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Academic%20and%20Student%20Affairs%20Forms/DrPH%20Practicum%20Packet%202014.docx)

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#### **2.4.A.1 HOST SITE SELECTIONS**

The practicum host sites are chosen carefully with the goal of being able to integrate students' academic coursework into real world situations to grow personal and professional skills and to prepare students for a public health career. The experience at a host site is intended to provide students with an opportunity to develop professional skills in a public health setting while contributing to the needs of an organization. With the strong support and commitment from community partners, ColoradoSPH students have the opportunity to participate in public health practice throughout the state, region, nationally, and internationally.

The primary responsibilities of a host site and preceptor are to:

- Work with students to develop a realistic graduate level project within the practicum time commitment and student schedule
- Provide the student with a background about the organization and project
- Be available to meet with student, provide supervision, and feedback
- Provide resources for students to complete the project (i.e., office space, computer, access to data)
- Provide written feedback for the student and the School by completing evaluation forms midway through practicum (after 60 hours completed) and a final evaluation
- Support students in professional development activities (i.e., include in staff meetings, introduce to organizational leaders, invite to professional events)

ColoradoSPH chooses practicum host sites based on students' interests and career goals and the ability of the mentor and agency to provide a supportive learning environment. Students may identify their own sites or may consult with their concentration director, faculty advisor, and/or the PBL team. The ColoradoSPH PBL team also conducts outreach to identify potential sites. All sites will go through the same approval process to ensure they all meet ColoradoSPH's standard for practicum host sites.

Students are expected to take a lead role in identifying the practicum sites and preceptors that best meet their career goals, with guidance through meetings with the faculty director of PBL, their concentration/focus area directors, and their academic advisors. Once a student focuses on a particular practicum site, he or she develops a learning plan and completes a placement agreement that describes the site, preceptor and what the student will be doing during the experience. The student shares these documents with their concentration director and/or advisor and their campus PBL director and both approve the choice of practicum site and the proposed learning plan. All approvals must be obtained, and the plan must be submitted to the campus PBL director prior to the initiation of the practicum.

Final approval of the practicum site is based upon: 1) the ability of the site to provide a professional experience for the student; 2) the willingness of the agency to undertake the responsibility; 3) the ability of the agency to provide suitable supervision of the student by a professional with a degree in a relevant field; and 4) the approval of the concentration or focus area director. Students may, with approval from their concentration (MPH) or focus area (DrPH) director, conduct their practicum where they work. However, they may not do a project that is part of their everyday job responsibilities within their specific work setting or under the direction of their current supervisor. Sites may include state, local or federal health agencies or departments, non-profit organizations, international sites, or departments within CU Anschutz, CSU, and UNC.

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#### **2.4.A.2 PRECEPTOR SELECTION AND QUALIFICATION**

The preceptors within sites are approved based on their: area of expertise; desire to work with a student; willingness to commit time to mentor a student; experience in public health practice; and appropriate educational background. A faculty member may also serve as the preceptor if an appropriate project is available – most often a community-based project on which the faculty member collaborates or leads. The student, in collaboration with their concentration director and preceptor, develops a learning plan and placement agreement contract to ensure the quality of each placement. All preceptor organizations complete an educational affiliation agreement with the School (see Resource File 2.4.a.2).

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#### **2.4.A.3 PRECEPTOR ORIENTATION AND SUPPORT**

All ColoradoSPH preceptors are provided a document: MPH Practicum Guidelines and Proposal (Resource File 2.4.a.3(1)). This document includes the requirements of the practicum, the process for students who are taking the practicum, expectations of preceptors, MPH competencies and contact information for the PBL team. This document is also available online on the ColoradoSPH practice-based learning website: <http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Pages/PracticeBasedLearning.aspx> . Often the PBL team schedules a one-on-one meeting with new preceptors to discuss the host site affiliation agreement, student project, expectations, and requirements. All preceptors have access to the PBL team via phone or e-mail when they need support or have questions in the practicum experience.

In 2014, the PBL team created an outline for online training for community preceptors. In addition, the PBL team explored online options based on cost, user-friendly options, and ability to update and change information as needed. This cost analysis will help the PBL team determine the best avenue for providing online training. The goal is that by 2016 online training will be available for preceptors.

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#### **2.4.A.4 FACULTY SUPERVISION AND STUDENT EVALUATION**

Faculty supervision and evaluation of students is accomplished through each student's weekly logbook documenting hours and through the submission of reflective journal assignments. Journal assignments include the following:

1. Description of activities conducted during 20, 40 or 50 hour segments
2. Discussion of progress toward achieving the learning plan
3. Reflections of experience. This section includes discussion of at least three of the following concepts:
  - Challenging previous thinking and/or knowledge
  - Reflect on what you previously thought about a situation, issue, and/or problem and compare what you are learning/doing in the practicum.
  - Evidence of actual learning/skill development
  - Discuss the learning that is occurring in the practicum. Provide detail on what you are acquiring and/or sharpening in terms of skills and competencies.
  - Theory vs. Practice
  - What experiences are related to or different from the concepts you have learned in the classroom? Discuss the extent to which theory is or could be utilized.
  - Professional Development
  - Describe situations that require the consideration of ethics and the use of judgment.
  - Relationship with the preceptor and other staff
  - Describe the role of your field supervisor and the way in which you interact with him/her as well as with other staff. Comment on the management/leadership styles you see exhibited.
  - Your place in the organization
  - Provide insight into how the organization sees the student and practicum process.

The PBL instructor and teaching assistant assigned to the course review journals and provide comments, ask for further clarification, and ask for the journals to be resubmitted if there are any missing responses. The journals are graded as "pass" or "re-submit." The MPH and DrPH Practicum courses are graded pass/fail on the CU Anschutz and UNC campuses. The practicum course uses letter grades on the CSU campus. The materials are provided in Resource File 2.4.a.4.

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#### **2.4.A.5 EVALUATION OF PLACEMENT SITES AND PRECEPTORS**

As part of the practicum course, the student is required to complete a final evaluation of the host site and the preceptor. Students use a 4-point scale to indicate how well their expectations were met regarding orientation to the site, staff qualifications and interactions, level of mentorship and professional feedback, and other aspects of the experience. An open-ended question asks whether they would recommend the site to other students. The evaluation tool is available in Resource File 2.4.a.5.

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#### **2.4.A.6 CRITERIA FOR WAIVING, ALTERING, OR REDUCING THE EXPERIENCE**

Waivers are not granted for the practicum experience. All MPH and DrPH students are required to fulfill the practicum requirement. In some cases, such as the General Preventive Medicine and Public Health and the Occupational Medicine residency programs, practice rotations fulfill the practicum experience. In all such

cases, the alternate experience exceeds the minimum number of hours (120) and incorporates public health into the practice experience.

#### **2.4.B IDENTIFICATION OF AGENCIES AND PRECEPTORS USED FOR PRACTICE EXPERIENCES FOR STUDENTS**

The School has more than 100 approved host sites from which students can choose a practicum experience. Placement sites from 2009 – Spring 2015 are listed in Resource File 2.4.b. Sites such as the Colorado Department of Public Health and Environment (CDPHE), Denver Health and Hospital Authority, and other large employers offer multiple practicum opportunities, but each employer is listed only once in Resource File 2.4.b. Students may also present other options for consideration. Of the 212 MPH practicum projects completed since summer 2012, 24% (n=50) took place within nonprofit or community-based organizations, 25% (n=52) took place within state or local health departments, 13% (n=27) took place within hospitals or health networks, 7% (n=14) took place within other governmental agencies, and 30% (n=64) took place with a university preceptor. Of those with a university preceptor, 73% (n=47) had a community focus, including contact with community members or the public health workforce. Overall, approximately 90% of all practica were deemed to have a community component/focus. Of the fourteen DrPH practicum projects completed or currently in progress, all had a community focus.

#### **2.4.C STUDENTS RECEIVING A WAIVER OF THE PRACTICUM EXPERIENCE**

No students received a waiver of the practicum experience.

#### **2.4.D DATA ON THE NUMBER OF PREVENTIVE MEDICINE, OCCUPATIONAL MEDICINE, AEROSPACE MEDICINE, AND GENERAL PREVENTIVE MEDICINE AND PUBLIC HEALTH RESIDENTS COMPLETING THE ACADEMIC PROGRAM FOR EACH OF THE LAST THREE YEARS, ALONG WITH INFORMATION ON THEIR PRACTICUM ROTATIONS**

The residency programs in Occupational Medicine and in General Preventive Medicine and Public Health are accredited by the Accreditation Council for Graduate Medical Education (ACGME). ACGME requires that residents complete graduate level public health courses, whether through an MPH or other equivalent degree, as part of the Occupational Medicine and General Preventive Medicine and Public Health residency programs. We feel strongly that this public health education is extremely important to their residency training.

In the years 2012-2015 there has been one occupational medicine (OM) resident completing the MPH during the residency (2012-14). The program also trained three OM residents who already possessed an MPH degree, but were required to take additional environmental and occupational health MPH courses to fulfill ACGME requirements. These residents are considered non-degree students in ColoradoSPH. The practicum component of the OM residency includes general occupational medicine clinics (based at academic medical centers, free-standing OEM clinics, and industrial sites); governmental agencies (OSHA, NIOSH, Colorado Division of Workers' Compensation); and elective sites (e.g., subspecialty clinics in physiatry, toxicology, travel medicine, orthopedics, ophthalmology, psychiatry, workers' compensation insurance, independent medical examinations/forensic medicine, and delayed recovery).

During the period July 1, 2012- June 30, 2015, seven general preventive medicine and public health (PM) residents completed the MPH degree during their residencies. We trained one additional PM resident who already possessed an MPH degree but completed additional MPH courses as a non-degree student during her residency to fulfill ACGME requirements. The practicum component of the PM residency includes public health and health policy (state, local and national public health agencies; state health care policy and finance agency), clinical preventive medicine (community health centers, hospitals, free-standing clinics, health maintenance organizations), research (academic research centers), as well as electives in population health, workforce development, or other domains related to general preventive medicine and public health.

A full list of placements for the OM and PM residents can be found in Resource File 2.4.d.

#### **2.4.E ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met.

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#### **STRENGTHS**

All MPH and DrPH students are required to complete a field-based practicum experience in which they develop practice-related competencies and demonstrate the application of basic public health concepts relevant to their areas of specialization. The settings for practicum placements are rich in variety and opportunity for meeting the interests and needs of the students. To date, the practicum experiences have provided a strong learning environment for students to enrich their competencies. Preceptors are dedicated and interested in being involved in the mentorship of our students.

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#### **WEAKNESSES**

With increasing numbers of students and the broad areas of interest, there is an increasing need for faculty and preceptor orientation and supervision. The faculty director for PBL (O. Jolly) currently works at .65 FTE. That position may need more effort as the School grows.

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#### **PLANS**

We are working to develop an online preceptor training module that will be in place in 2016. There are increasing numbers of students who are interested in international practicum experiences, and we are currently working on guidelines for vetting international sites and experiences that will be completed during the 2015-16 academic year. We are evaluating faculty and staffing needs to accommodate a growing number of students in need of oversight of their practicum experiences. We are developing mechanisms for faculty to become more familiar with practicum procedures and opportunities. The Colorado Department of Public Health and Environment recently hired a practicum director to coordinate and standardize the many practica that take place there. She is a graduate of the School's MPH program and will be in close communication with the ColoradoSPH PBL Office.





## 2.5 CULMINATING EXPERIENCE

### 2.5.A DESCRIPTION OF CULMINATING EXPERIENCE FOR EACH PROFESSIONAL PROGRAM

#### MASTER OF PUBLIC HEALTH CAPSTONE

MPH students across all concentrations complete a capstone project following a common set of guidelines. In addition to the capstone project, students may opt to complete a publishable paper reporting on their project. The goal for the capstone is for students to integrate aspects of the curriculum and competencies to build their understanding, appreciation for, and working knowledge of public health practice and, specifically how their chosen areas of concentration enhance public health practice in Colorado, the nation, and the world. The capstone project provides an opportunity for students to link theory, methods, skills, and knowledge from courses with real-life observations gained in their practicum experience, and to develop a program, policy, or other concrete project relevant to public health in their areas of interest and future employment. The expectation is that the work of the capstone project will require a minimum of 60 hours.

The capstone experience includes a course that emphasizes cross-disciplinary discussion and reflection on methods, products/results, and public health significance. In the capstone course, students also build their presentation skills for both oral and poster formats. At the conclusion of the one-semester course, all students participate in the Public Health Forum, where they present their projects orally and in poster format. The Public Health Forum is organized as a professional meeting. Students give 10-minute presentations followed by five minutes of questions and answers. Faculty, students, preceptors, members of the public health workforce, and other community members attend the forum. The poster session follows the oral sessions. A final written report of the capstone project is also required of all students, in which students reflect on the public health significance of their work and the development of competencies. Students in the online MPH program will complete all elements of the capstone. An online section of the course has been established. When possible, students will attend the Public Health Forum in person. When it is not possible for a student to attend in person, the student will present through distance technology, such as Skype.

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#### GUIDELINES FOR THE CAPSTONE

1. The capstone project should reflect the student's broad knowledge of the public health system and the special role that the selected concentration plays in accomplishing the ideals and objectives of public health practitioners.
2. The capstone project (and research paper if relevant) must relate the acquired skills from the specific MPH concentration to the overall goals of public health practice.
3. The capstone class (PUBH 6955), which incorporates presentation skills, should correlate the specific core learning objectives of the MPH degree with the final project or paper and the student's vocational objectives.

4. As the core MPH and concentration-specific courses in the MPH program provide input and guidance for selecting and conducting a successful MPH practicum, the practicum experience will often provide the idea and issues for the capstone project. Since students invest 120 hours in the practicum, they are encouraged to capitalize on this experience and gain efficiency by using the practicum to launch the capstone experience.
5. A student may choose to do a capstone project (and research paper if relevant) that does not relate to the practicum if another proposed project better meets relevant interests and career goals.
6. In order to adequately gauge the success of the project in fulfilling the goals of the capstone project and ultimately prepare students for careers in public health, the student's faculty advisor (and practice preceptor if applicable) will review and approve the project proposal before enrollment in the capstone course and will assist capstone faculty with assessment of the completed project.
7. Some students may choose to prepare a publishable paper reporting on their project. Students should declare the desire to engage in a research paper option as early as possible, with approval of the faculty advisor and assignment of a faculty mentor and/or practice preceptor. This option requires 2 credits of research paper in addition to the capstone course (PUBH 6651). The 2 credits for the research paper count towards general electives for the MPH. Students are generally required to prepare the paper for publication in a peer-reviewed journal and submit the paper to a journal prior to receiving a final grade for the research paper and capstone course credits.

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#### CAPSTONE EXPERIENCE OBJECTIVES:

1. To develop products that can be added to the student's portfolio, documenting her/his reasoning, decision-making, analytical and authorship skills as they relate to linking important public health projects to the MPH learning objectives and competencies. Products may include a capstone project or a research paper.
2. To provide a collaborative environment for students from all concentrations to review and discuss the core competencies of the MPH curriculum in relationship to their practice-related experiences.
3. To provide an independent but guided opportunity for the student to practice and document the role that their specific concentration skills play in public health practice.
4. To develop awareness of personal strengths and competencies as a public health professional.
5. To improve skills related to presenting project results in oral and written formats.

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#### CAPSTONE EXPERIENCE COMPETENCIES:

The capstone experience is designed to directly address the following basic public health competencies, in addition to competencies specific to the student's concentration.

- |          |  |
|----------|--|
| CR-CC1:  | Define, assess, and report on the health status of populations, determinants of health and illness, and factors contributing to health promotion and disease prevention. |
| CR-CC 3: | Communicate effectively both in writing and orally with policymakers, professionals, and the public.   |
| CR-CC 4: | Identify and address ethical issues that arise in public health practice and research.   |

- CR-CC 5: Identify, retrieve, appraise, and apply scientific evidence relevant in the practice of public health.
- CR-CC 6: Understand and utilize leadership, team building, negotiation, and conflict resolution skills to build partnerships for the purpose of improving the public's health.
- CR-CC 11: Describe steps and strategies to consider when working collaboratively in a culturally-sensitive manner with diverse groups to promote the health of communities.
- CR-CC 14: Understand the importance of a diverse public health workforce.
- 

## SELECTION OF A PROJECT:

In order to optimize the student's public health experience in the MPH program, it is strongly recommended that the project be related to, emanate from, or culminate the efforts and work of the practicum experience. Capstone faculty meet with practicum students at the mid-point of the practicum course to facilitate project development.

Projects should be related to the student's MPH concentration area, but they may take on many different structures and formats based on the specific experiences. Completed projects should demonstrate acquisition of MPH and concentration-specific competencies, generally including analytic skills. A tangible product is expected at the end of the capstone experience. Examples of projects include but are not limited to the following:

- Grant development
- Data analysis and report
- Capacity building project (organizational or institutional development)
- Epidemiological investigation
- Program planning, implementation, and evaluation
- Survey development and implementation
- Community assessment
- Health policy analysis, statement, or advocacy plan

Abstracts of capstone projects from summer 2014, fall 2014, and spring 2015 are available in Resource File 2.5.a. The capstone course for the MPH varies across three campuses as described below.

### CU Anschutz

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During capstone course sessions at CU Anschutz, students share their experiences, successes, and challenges within small groups (three to eight students) so that faculty and peers can give constructive feedback. The multidisciplinary interaction between students strengthens each project and provides opportunities to consider concentration-specific competencies from different perspectives. The Capstone Course meets at least 10 times throughout the semester, allowing students to discuss their own projects while providing feedback on other students' projects. In the first class meeting, all students provide an overview of their capstone project, agency, and practicum experience if tied to the capstone. Overviews include project goals and objectives, experiences, successes, challenges, and potential solutions to these challenges. These

presentations result in all students enrolled in the class having an understanding of projects that can better enable beneficial interactions between students, and allow for constructive criticism/feedback for all students as the course progresses. Subsequent weekly class meetings are facilitated by the capstone course faculty, and involve discussions related to inclusion and demonstration of MPH competencies, development and improvement of presentation materials, papers and abstracts, and assistance in the development of deliverables for public health agencies in which students are engaged. These course meetings are discussion-based with students and course faculty providing feedback and support for these students. ColoradoSPH capstone course faculty include representatives from each of the five core areas. These representatives oversee and monitor progress throughout the course, provide feedback, and assign grades for the projects, papers and presentations. They take into consideration feedback from the students' preceptors and faculty supervisors.

## CSU

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Two senior faculty (L. Stallones and T. Nelson) serve as faculty advisors for the capstone course at CSU to monitor progress, provide feedback, address challenges, and grade the work. Students enrolled in the course are required to meet with their faculty advisor a minimum of three times during the semester to review progress and materials prepared for the presentations (abstracts, posters and powerpoint presentations). In addition, sessions in which students from across concentrations present their work to each other are scheduled prior to the formal presentations.

## UNC

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At UNC, at the beginning of the capstone course, each student is paired with another student so that they can provide peer reviews of materials to be developed for inclusion in the capstone portfolio. These materials include: papers, oral presentations, poster presentation, abstract, and final portfolio. This provides the students with experience in reviewing and editing work that may be outside of their area of expertise, and provides peer support in moving through the capstone process. In the first class meeting, all students provide an overview of their capstone project, agency, and practicum experience if tied to the capstone. Overviews include project goals and objectives, experiences, successes, challenges, and potential solutions to these challenges. These presentations result in all students enrolled in the class having an understanding of projects that can better enable beneficial interactions between students, and allow for constructive criticism/feedback for all students as the course progresses. Subsequent weekly class meetings are led by the capstone course director (T. Sharp), and involve discussions related to inclusion and demonstration of MPH competencies, development and improvement of presentation materials, papers and abstracts, and assistance in the development of deliverables for public health agencies in which students are engaged. These course meetings are discussion-based with students and course faculty providing feedback and support for these students. In the last week of the semester, capstone students are required to present their capstone projects to program and other interested faculty and students for final feedback prior to the ColoradoSPH Public Health Forum. Further details about the MPH capstone are described in Resource File 2.5.a.

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## DOCTOR OF PUBLIC HEALTH DISSERTATION

DrPH students complete a dissertation as their culminating experience. The dissertation is of an applied nature and must demonstrate the student's ability to conduct independent research on a contemporary

public health issue. The student is expected to examine and analyze a problem in public health practice that has readily identifiable beneficiaries and constituents. The dissertation committee works with the student to identify appropriate areas of investigation. The project involves a written product that comprehensively addresses, generates, and/or interprets and evaluates knowledge applicable to public health practice.

The written dissertation document may be one of several forms depending on the nature of the scholarly work, but should be of publishable quality and must demonstrate rigorous analytic strategies. It will typically take one of two forms: (1) a unified traditional dissertation, or (2) three publishable papers plus, at a minimum, introduction and conclusion chapters. The dissertation is defended publicly and must be approved by the Dissertation Committee before the degree of DrPH is conferred.

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## DISSERTATION COMMITTEE

Each student forms a 5-member dissertation committee to guide their dissertation research including the directed reading, written comprehensive examination, dissertation research proposal, oral comprehensive examination, conduct of research, and completion and defense of the dissertation. The committee chair must have a primary faculty appointment from the focus area department. The student's main mentor must have a primary or secondary appointment in ColoradoSPH. The mentor may not be the chair of the dissertation committee. In addition, the committee as a whole must meet the following minimum criteria:

1. Two members must be program core faculty in the focus area department
2. One member must be from outside the focus area department
3. One member must be from the practice community

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## DIRECTED READING (2 CREDIT HOURS)

The DrPH directed reading course is intended to help prepare DrPH students for their comprehensive exams and dissertation research. This activity is intended to result in the student being an expert in their specific area(s) of research, including understanding of the historical development of the specific area(s), current research findings in the specific area(s), and current practice in the area(s). Readings address current epidemiological understanding of the area, methodological aspects of the area, theoretical underpinnings of behavior and/or policy related to the area, and current practice. For example, in the area of physical activity, upon completion of this activity, a student would be expected to have a thorough understanding of epidemiological evidence supporting or disputing a relationship between physical activity and disease etiology; natural history; physiological/psychological mechanisms for the relationship between physical activity and health/disease status; social, environmental and system level determinants; theoretical approaches used in understanding determinants of physical activity behavior; methods for assessing levels of physical activity; and current practices in developing programs for increasing levels of physical activity.

Prior to enrolling in the course and with guidance from the committee, the student must:

- Select at least two areas of focus that are in line with the student's dissertation area of study.
- Compile an extensive reading list in these select areas. The reading list should include seminal readings, reviews, meta-analyses and key original pieces of work.

- Gain approval of the reading list by the dissertation committee. Committee members may choose to add/delete various readings from the list.

Once the initial reading list is finalized, the student may enroll in the DrPH directed reading course and is expected to complete an annotated bibliography of the full reading list within the designated time span (i.e., one or two semesters as described above). The final reading list should include approximately 75-100 readings. The written and oral comprehensive exams take place upon completion of the directed reading.

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## WRITTEN COMPREHENSIVE EXAM

Upon completion of the directed reading course, the student schedules his/her written comprehensive exam. The exam includes three-five essay questions written by the dissertation committee that incorporate DrPH competencies (both general and focus area specific) and the areas covered in the student's directed reading. The student has two weeks to provide written answers. Responses are expected to be in-depth with citations and may be of publishable quality (such as a literature synthesis). The full written response should be approximately 20-30 single-spaced pages. The committee will grade (pass/fail) the written exam and submit the final grade to the program director. Each student who passes the written exam is able to begin preparation for the dissertation proposal oral defense.

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## ORAL DEFENSE

Following completion of the written qualifying exam and the written dissertation proposal, students present their proposal in an oral examination. The oral examination may include questions that cover the student's focus area, directed reading and dissertation proposal. The examination includes a detailed review and discussion of the proposed dissertation research.

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## FINAL DISSERTATION DEFENSE

A final examination of the dissertation is conducted orally by the examination committee.

### 2.5.B EXTENT TO WHICH THIS CRITERION IS MET

This criterion is met.

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## STRENGTHS

MPH and DrPH students complete structured culminating experiences that provide valuable opportunities to synthesize knowledge and proficiency in competencies. Students are challenged to place their individual projects in the context of the larger perspective of public health, and to think about the problems they have chosen to address from multiple perspectives representing the five core areas of public health. These are significant experiences in which a great degree of development is observed in students, leading to enhanced skills and confidence for entering or continuing in public health practice. The level of independence required for identifying and completing a project is a key feature of the experience. We strongly believe that the practice-based learning aspect of the capstone experience leads to a tremendous level of growth for many students. The Public Health Forum, where MPH students present their capstone projects and DrPH students present their practicum experiences, is a time of celebration and pride for students and faculty. Many

significant projects have been conducted through the capstone, leaving a positive mark on public health practice in our region.

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## **WEAKNESSES**

Providing guidance to the entire MPH student body in the completion of individual projects is very time consuming for faculty and expensive for the School to support. The locus of responsibility for student guidance in the capstone is diffused across capstone course faculty, faculty advisors, and project preceptors, and sometimes this diffusion of responsibility leads to confusion about who has the primary responsibility for guiding each student. As a consequence, on rare occasions, students find themselves working on projects for which they do not have adequate knowledge or skills, such as conducting qualitative research without having taken a qualitative methods course, or implementing a statistical analysis that requires statistical methods that they have not studied. These situations have created challenges and have led us to improve our pre-capstone advising.

The current structure of our MPH Capstone experience seems to work best with projects that fit the timeframe of a one-semester experience, such as a secondary data analysis. Faculty have expressed some concern over how the structure fits with different types of projects that have different timelines or characteristics, such as a policy analysis.

Because some MPH concentrations have higher enrollment than others (e.g., Epidemiology and Community and Behavioral Health have much higher enrollment than Environmental and Occupational Health and Applied Biostatistics), students from smaller concentrations sometimes feel that their areas of interest are not given an equitable level of attention in the capstone course by faculty and other students.

The DrPH program is four years old and our first students are currently working on their dissertations. Thus, we cannot fully speak to the success of the DrPH dissertation process.

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## **PLANS**

While we feel we have workable approaches for both the MPH and DrPH culminating experiences, we continue to discuss and consider alternative structures, especially for the MPH degree, such as group projects and comprehensive exams. We have recently modified the approval process for the MPH capstone, requiring the student's advisor to verify that the student has sufficient existing expertise to complete the project or access to mentorship in developing the necessary expertise as they complete the project. We have increased the orientation and oversight of MPH capstone instructors to assure that appropriate facilitation is occurring during group discussions and that all students are encouraged to be active participants and provide feedback to their peers on all projects.





## 2.6 REQUIRED COMPETENCIES

### 2.6.A IDENTIFICATION OF A SET OF COMPETENCIES THAT ALL GRADUATE PROFESSIONAL PUBLIC HEALTH DEGREE STUDENTS AND BACCALAUREATE PUBLIC HEALTH DEGREE STUDENTS, REGARDLESS OF CONCENTRATION, MAJOR OR SPECIALTY AREA, MUST ATTAIN

TABLE 2.6.A(1) MPH CORE COMPETENCIES

Identifier	Core (CR) – Cross Cutting (CC) Competencies
CR-CC 1	Define, assess and report on the health status of populations, determinants of health and illness, and factors contributing to health promotion and disease prevention.
CR-CC 2	Determine uses and limitations of quantitative and qualitative methods in research and public health practice.
CR-CC 3	Communicate effectively both in writing and orally with policymakers, professionals, and the public.
CR-CC 4	Identify and address ethical issues that arise in public health practice and research.
CR-CC 5	Identify, retrieve, appraise, and apply scientific evidence relevant in the practice of public health.
CR-CC 6	Understand and utilize leadership, team building, negotiation, and conflict resolution skills to collaborate and build partnerships for the purpose of improving the public's health.
CR-CC 7	Identify organizational decision-making structures, stakeholders, style and processes.
CR-CC 8	Define a public health problem and specify an analytic approach.
CR-CC 9	Discuss sentinel events in the history and development of the public health profession and their relevance for practice in the field.
CR-CC 10	Describe and apply the concepts the use of the 3 core functions and 10 essential public health services to inform public health practice.
CR-CC 11	Describe steps and strategies to consider when working collaboratively in a culturally-sensitive manner with diverse groups to promote the health of communities.
CR-CC 12	Describe the roles of history, power, privilege and structural inequality in producing health disparities.
CR-CC 13	Integrate professional ethics, principles of cultural competence and accountability in all professional conduct.
CR-CC 14	Explain the importance of a diverse public health workforce.

Identifier	Core (CR) MPH Biostatistics Competencies
CR-BIOS 1	Describe the roles that biostatistics serves in the disciplines of public health research.
CR-BIOS 2	Distinguish among the different measurement scales and the implications for selection of statistical methods to be used based on these distinctions.
CR-BIOS 3	Describe basic concepts of probability, commonly used probability distributions, statistical accuracy, systematic and random variation, and statistical correlation.
CR-BIOS 4	Apply descriptive statistics and related techniques for expressing levels of confidence in estimators that are commonly used to summarize public health data, using statistical software.
CR-BIOS 5	Apply basic statistical estimation and inference methods, along with necessary assumptions, that apply to the commonly used statistical methods in public health, using statistical software.
CR-BIOS 6	Apply alternative statistical methods (e.g. nonparametric methods) when assumptions are not met completely or when working with small research data sources, using statistical software.
CR-BIOS 7	Apply basic database management principles to public health records, clinical observations or observational data to facilitate data analysis, data quality management, and administrative and scientific reporting using a statistical software package.
CR-BIOS 8	Create and interpret results in summary tables (e.g., Table 1) of public health and other scientific publications.
CR-BIOS 9	Describe and interpret statistical analyses commonly done in public health studies in language and terms appropriate for both public health professionals and educated lay audiences.

Identifier	Core (CR) MPH Community and Behavioral Health Competencies
CR-CBHS 1	Identify theories, concepts and models from a range of social and behavioral disciplines used in public health research and practice.
CR-CBHS 2	Identify the social and behavioral factors that affect the health of individuals and populations.
CR-CBHS 3	Use a socio-ecological framework when identifying appropriate interventions to improve population health.
CR-CBHS 4	Identify community health needs and assets, including those at the individual, organizational, and community levels for the purpose of designing social and behavioral interventions to improve health.
CR-CBHS 5	Describe the merits and limitations of social and behavioral science programs and policies for improving population health.
CR-CBHS 6	Describe steps and methods for the planning, implementing and evaluating of evidence-based public health programs and policies.
CR-CBHS 7	Identify strategies for engaging stakeholders in planning, implementing and evaluating public health programs and policies.

Identifier	Core (CR) MPH Environmental and Occupational Health Competencies
CR-EHOH 1	Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents of regional, national, and global importance.
CR-EHOH 2	Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures.
CR-EHOH 3	Specify approaches for assessing, preventing and controlling environmental and occupational hazards that pose risks to human health and safety.
CR-EHOH 4	Specify current environmental exposure and risk assessment methods.
CR-EHOH 5	Discuss various risk assessment, management and risk communication approaches in relation to issues of environmental justice and equity.
CR-EHOH 6	Develop a testable model of environmental insult.
CR-EHOH 7	Describe federal and state regulatory programs, guidelines and authorities that control environmental and occupational health issues.
CR-EHOH 8	Describe genetic, physiologic and psychological factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards.

Identifier	Core (CR) MPH Epidemiology Competencies
CR-EPID 1	Compare strengths and limitations of various study designs and reports to answer public health questions.
CR-EPID 2	Explain the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues.
CR-EPID 3	Describe a public health problem in terms of magnitude, person, time, and place.
CR-EPID 4	Apply basic terminology and definitions of epidemiology.
CR-EPID 5	Identify key sources of data for epidemiologic purposes.
CR-EPID 6	Calculate basic epidemiology measures.
CR-EPID 7	Draw appropriate inferences from epidemiologic data.
CR-EPID 8	Comprehend basic ethical legal principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data.
CR-EPID 9	Identify the principles and limitations of public health screening and surveillance systems.

Identifier	Core (CR) MPH Health Systems Management and Policy Competencies
<b>Health Systems and Health Economics</b>	
CR-HSMP 1	Explain the effects of markets and political processes on the organization, financing and delivery of public and private health services in the U.S. system.
CR-HSMP 2	Describe commonly used methods for evaluating health economic policy, including the use of cost-benefit and cost-effectiveness analysis.
CR-HSMP 3	Distinguish between models used for financing and delivering healthcare.
<b>Management and Leadership</b>	
CR-HSMP 4	Identify key tenets of effective organizational and financial management and the strengths and limitations of different management approaches for improving population health.
CR-HSMP 5	Explain key elements of human resource management: defining roles and responsibilities; recruiting, motivating and retaining staffing; and assessing and applying measures for performance improvement.
CR-HSMP 6	Describe common quality and performance improvement tools and the appropriate times to use them in public health and healthcare settings.
CR-HSMP 7	Describe principles of budgeting and financial decision analysis in public health and healthcare settings.
CR-HSMP 8	Describe attributes of strategic leadership, including the use of vision, mission, values, goals and objectives.
<b>Policy</b>	
CR-HSMP 9	Identify and interpret key public health laws, regulations, and policies affecting health programs and the delivery of health services.
CR-HSMP 10	Describe commonly used frameworks for systematically and critically evaluating the policy development and implementation process at the federal, state, and local levels and outside the U.S.
CR-HSMP 11	Describe the importance of engaging stakeholders and building coalitions in the development or implementation of health policy.
CR-HSMP 12	Describe ethical considerations (such as social justice and human rights) affecting health policy and how the organization and delivery of health care in the U.S. contributes to health equity.

TABLE 2.6.A(2) DRPH CORE COMPETENCIES

Identifier	Core (CR) DrPH Competencies
CR-DrPH 1	Advocacy: The ability to influence decision-making regarding policies and practices that advance public health using consensus-building, analysis, communication, and scientific knowledge.
CR-DrPH 2	Communication: The ability to assess and use communication strategies across diverse audiences to inform and influence individual, organization, community, and policy decisions that enhance health.
CR-DrPH 3	Community/Cultural Orientation: The ability to communicate and interact with people across communities and cultures for service development and intervention-oriented, community-based participatory research.
CR-DrPH 4	Critical Analysis: The ability to develop, synthesize, interpret, and apply evidence-based research and theory from a broad range of disciplines and health-related data sources to facilitate programs, policies, and systems for promoting population health.
CR-DrPH 5	Leadership: The ability to inspire trust and motivate others to use evidence-based strategies to enhance essential public health services.
CR-DrPH 6	Management: The ability to provide fiscally responsible strategic and operational guidance for both public and private health-related organizations for the purpose of achieving individual and community health and wellness.
CR-DrPH 7	Professionalism & Ethics: The ability to identify and analyze an ethical issue; balance the claims of personal liberty with concerns about population health; and act on the ethical concepts of social justice, human rights in public health research and practice.

## 2.6.B IDENTIFICATION OF A SET OF COMPETENCIES FOR EACH CONCENTRATION, MAJOR OR SPECIALIZATION IDENTIFIED IN THE INSTRUCTIONAL MATRIX

See separate competency document in Resource File 2.6.b(1).

## 2.6.C MATRIX THAT IDENTIFIES THE LEARNING EXPERIENCES BY WHICH THE COMPETENCIES DEFINED IN CRITERIA 2.6.A AND 2.6.B ARE MET

Core competencies of the MPH and DrPH are mapped to learning experiences in the following tables, Tables 2.6.c(1) and 2.6.c(2). Competency mappings for concentration/focus areas of these two degree programs are provided in Resource File 2.6.c.

TABLE 2.6.C(1) (TEMPLATE 2.6.1) COURSES AND ACTIVITIES THROUGH WHICH DRPH COMPETENCIES ARE MET

Identifier	Competency	Biostatistics Core Course	Community and Social Factors Core Course	Environmental and Occupa- tional Health Core Course	Epidemiology Core Course	Health Systems Core Course	Foundations in Public Health Core Course	Practicum	Capstone
		BIOS 6601/ CHBH 6120/ EDRM 6060/ VSCS 6620	CBHS 6610/ CBHS 6611/ CHBH 5090/ HESC 5560/ PBHC 5500	EHOH 6614/ CHBH 5500/ ERHS 5200	EPID 6630/ CHBH 6200/ ERHS 5320	HSMP 6601/ CHBH 6350	PUBH 6600/ PBHC 5160	PUBH 6606/ CHBH 6930/ PBHC 6860	PUBH 6955/ CHBH 6860/ PBHC 6980
Cross-Cutting Core Competencies									
CR-CC 1	Define, assess and report on the health status of populations, determinants of health and illness, and factors contributing to health promotion and disease prevention.		P	P	P	R	P	R	P
CR-CC 2	Determine uses and limitations of quantitative and qualitative methods in research and public health practice	P	R	R	R		R		R
CR-CC 3	Communicate effectively both in writing and orally with policy makers, professionals, and the public.	R	P	P	P	R	P	P	P
CR-CC 4	Identify and address ethical issues that arise in public health practice and research.	R	R	R	R	P	P		R
CR-CC 5	Identify, retrieve, appraise, and apply scientific evidence relevant in the practice of public health.	P	P	P	P		P	P	P
CR-CC 6	Understand and utilize leadership, team building, negotiation, and conflict resolution skills to collaborate and build partnerships for the purpose of improving the public’s health.			R		P	R	P	R
CR-CC 7	Identify organizational decision-making structures, stakeholders, style and processes.		R				R	P	R

P=Primary, R=Reinforcing

Identifier	Competency	Biostatistics Core Course	Community and Social Factors Core Course	Environmental and Occupa- tional Health Core Course	Epidemiology Core Course	Health Systems Core Course	Foundations in Public Health Core Course	Practicum	Capstone
		BIOS 6601/ CHBH 6120/ EDRM 6060/ VSCS 6620	CBHS 6610/ CBHS 6611/ CHBH 5090/ HESC 5560/ PBHC 5500	EHOH 6614/ CHBH 5500/ ERHS 5200	EPID 6630/ CHBH 6200/ ERHS 5320	HSMP 6601/ CHBH 6350	PUBH 6600/ PBHC 5160	PUBH 6606/ CHBH 6930/ PBHC 6860	PUBH 6955/ CHBH 6860/ PBHC 6980
Cross-Cutting Core Competencies									
CR-CC 8	Define a public health problem and specify an analytic approach	P	P	R	R		R	P	P
CR-CC 9	Discuss sentinel events in the history and development of the public health profession and their relevance for practice in the field.			R	R	R	P		
CR-CC 10	Describe and apply the concepts of the 3 core functions and 10 essential public health services to inform public health practice.			R			P		
CR-CC 11	Describe steps and strategies to consider when working collaboratively in a culturally-sensitive manner with diverse groups to promote the health of communities.		P	R			P	P	R
CR-CC 12	Describe the roles of history, power, privilege and structural inequality in producing health disparities.		R	R			P		
CR-CC 13	Integrate professional ethics, principles of cultural competence and accountability in all professional conduct.		R			R	R	P	R
CR-CC 14	Explain the importance of a diverse public health workforce.		R			R	R		

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Biostatistics Core Competencies									
CR-BIOS 1	Describe the roles that biostatistics serves in the disciplines of public health research.	P							
CR-BIOS 2	Distinguish among the different measurement scales and the implications for selection of statistical methods to be used based on these distinctions.	P							
CR-BIOS 3	Describe basic concepts of probability, commonly used probability distributions, statistical accuracy, systematic and random variation, and statistical correlation.	P							
CR-BIOS 4	Apply descriptive statistics and related techniques for expressing levels of confidence in estimators that are commonly used to summarize public health data, using statistical software.	P							
CR-BIOS 5	Apply basic statistical estimation and inference methods, along with necessary assumptions, that apply to the commonly used statistical methods in public health, using statistical software.	P							
CR-BIOS 6	Apply alternative statistical methods (e.g. nonparametric methods) when assumptions are not met completely or when working with small research data sources, using statistical software.	P							

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Biostatistics Core Competencies									
CR-BIOS 7	Apply basic database management principles to public health records, clinical observations or observational data to facilitate data analysis, data quality management and administrative and scientific reporting using a statistical software package.	P							
CR-BIOS 8	Create and interpret results in summary tables (e.g., Table 1) of public health and other scientific publications.	P							
CR-BIOS 9	Describe and interpret statistical analyses commonly done in public health studies in language and terms appropriate for both public health professionals and educated lay audiences.	P							

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Community and Behavioral Health Core Competencies									
CR-CBHS 1	Identify theories, concepts and models from a range of social and behavioral disciplines used in public health research and practice.		P						
CR-CBHS 2	Identify the social and behavioral factors that affect the health of individuals and populations.		P						
CR-CBHS 3	Use a socio-ecological framework when identifying appropriate interventions to improve population health.		P						
CR-CBHS 4	Identify community health needs and assets, including those at the individual, organizational, and community levels for the purpose of designing social and behavioral interventions to improve health.		P						
CR-CBHS 5	Describe the merits and limitations of social and behavioral science programs and policies for improving population health.		P						
CR-CBHS 6	Describe steps and methods for the planning, implementing and evaluating of evidence-based public health programs and policies.		P						
CR-CBHS 7	Identify strategies for engaging stakeholders in planning, implementing and evaluating public health programs and policies.		P						

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Environmental and Occupational Health Core Competencies									
CR-EHOH 1	Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents of regional, national, and global importance.			P					
CR-EHOH 2	Explain the general mechanisms of toxicity in eliciting a toxic response to various environmental exposures.			P					
CR-EHOH 3	Specify approaches for assessing, preventing and controlling environmental and occupational hazards that pose risks to human health and safety.			P					
CR-EHOH 4	Specify current environmental exposure and risk assessment methods.			P					
CR-EHOH 5	Discuss various risk assessment, management and risk communication approaches in relation to issues of environmental justice and equity.			P					
CR-EHOH 6	Develop a testable model of environmental insult.			P					
CR-EHOH 7	Describe federal and state regulatory programs, guidelines and authorities that control environmental and occupational health issues.			P					
CR-EHOH 8	Describe genetic, physiologic and psychological factors that affect susceptibility to adverse health outcomes following exposure to environmental hazards.			P					

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Epidemiology Core Competencies									
CR-EPID 1	Compare strengths and limitations of various study designs and reports to answer public health questions				P				
CR-EPID 2	Explain the importance of epidemiology for informing scientific, ethical, economic and political discussion of health issues.				P				
CR-EPID 3	Describe a public health problem in terms of magnitude, person, time and place.				P				
CR-EPID 4	Apply basic terminology and definitions of epidemiology.				P				
CR-EPID 5	Identify key sources of data for epidemiologic purposes.				P				
CR-EPID 6	Calculate basic epidemiology measures.				P				
CR-EPID 7	Draw appropriate inferences from epidemiologic data.				P				
CR-EPID 8	Comprehend basic ethical legal principles pertaining to the collection, maintenance, use and dissemination of epidemiologic data.				P				
CR-EPID 9	Identify the principles and limitations of public health screening and surveillance systems.				P				

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Health Systems, Management and Policy Core Competencies									
CR-HSMP 1	Explain the effects of markets and political processes on the organization, financing and delivery of public and private health services in the U.S. system.					P			
CR-HSMP 2	Describe commonly used methods for evaluating health economic policy, including the use of cost-benefit and cost-effectiveness analysis.					P			
CR-HSMP 3	Distinguish between models used for financing and delivering healthcare.					P			
CR-HSMP 4	Identify key tenets of effective organizational and financial management and the strengths and limitations of different management approaches for improving population health.					P			
CR-HSMP 5	Explain key elements of human resource management: defining roles and responsibilities; recruiting, motivating and retaining staffing; and assessing and applying measures for performance improvement.					P			
CR-HSMP 6	Describe common quality and performance improvement tools and the appropriate times to use them in public health and healthcare settings.					P			

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Health Systems, Management and Policy Core Competencies									
CR-HSMP 7	Describe principles of budgeting and financial decision analysis in public health and healthcare settings.					P			
CR-HSMP 8	Describe attributes of strategic leadership, including the use of vision, mission, values, goals and objectives.					P			
CR-HSMP 9	Identify and interpret key public health laws, regulations, and policies affecting health programs and the delivery of health services					P			
CR-HSMP 10	Describe commonly used frameworks for systematically and critically evaluating the policy development and implementation process at the federal, state, and local levels and outside the U.S.					P			
CR-HSMP 11	Describe the importance of engaging stakeholders and building coalitions in the development or implementation of health policy.					P			
CR-HSMP 12	Describe ethical considerations (such as social justice and human rights) affecting health policy and how the organization and delivery of health care in the U.S. contributes to health equity.					P			

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TEMPLATE 2.6.C(2) (TEMPLATE 2.6.1) COURSES AND ACTIVITIES THROUGH WHICH DRPH COMPETENCIES ARE MET

Identifier	Competency	Public Health Administration	Principles of Healthcare Management	DrPH Seminar in Leadership (I&II)	DrPH Seminar
Applicable Courses		HSMP 6606	HSMP 6612	CBHS 7020/7022 EPID 7020/7022	PUBH 6842
CR-DrPH 1	Advocacy - The ability to influence decision-making regarding policies and practices that advance public health using consensus-building, analysis, communication, and scientific knowledge.	P		R	P
CR-DrPH 2	Communication - The ability to assess and use communication strategies across diverse audiences to inform and influence individual, organization, community, and policy decisions that enhance health.	R	R	R	P
CR-DrPH 3	Community/Cultural Orientation – The ability to communicate and interact with people across communities and cultures for service development and intervention-oriented, community-based participatory research.	R	R		
CR-DrPH 4	Critical Analysis – The ability to develop, synthesize, interpret, and apply evidence-based research and theory from a broad range of disciplines and health-related data sources to facilitate programs, policies, and systems for promoting population health.	P	R		P
CR-DrPH 5	Leadership - The ability to inspire trust and motivate others to use evidence-based strategies to enhance essential public health services.	R	P	R	R
CR-DrPH 6	Management - The ability to provide fiscally responsible strategic and operational guidance for both public and private health-related organizations for the purpose of achieving individual and community health and wellness.	P	P		
CR-DrPH 7	Professionalism & Ethics -The ability to identify and analyze an ethical issue;; balance the claims of personal liberty with concerns about population health;; and act on the ethical concepts of social justice, human rights in public health research and practice.	R	P	R	P

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#### **2.6.D ANALYSIS OF THE COMPLETED MATRIX INCLUDED IN CRITERION 2.6.C. IF CHANGES HAVE BEEN MADE IN THE CURRICULA AS A RESULT OF THE OBSERVATIONS AND ANALYSIS, SUCH CHANGES SHOULD BE DESCRIBED**

The matrix shows that all competencies are being addressed in courses that are required of students in the various programs. For the MPH, cross-cutting competencies are addressed in multiple courses, as well as in the practicum and capstone experiences, and across departments. MPH core competencies in the five core areas are being fully addressed in the five core courses, assuring exposure to all students. Reinforcement occurs in our Foundations in Public Health course (PUBH 6600) and in the practicum and capstone courses. In the concentrations of the MPH and the focus areas of the DrPH, concentration/focus area competencies are all addressed, typically with competencies being addressed in multiple courses for reinforcement. In the process of reviewing and updating competencies so that our programs are current and relevant, and in the process of mapping the revised competencies to courses, several changes were made to courses. For example, the core MPH course for the area of Health Systems, Management and Policy (HSMP 6601) was completely redesigned to address new competencies and the redesigned course was offered for the first time in spring 2015. Major revisions were made to the core MPH course in Biostatistics (BIOS 6601), specifically to address data analysis skills. The revised course was offered for the first time in fall 2014. In the MPH Epidemiology concentration, mapping led to the realization that one competency (CN-EPID 2) was not being addressed adequately in any class, and the relevant classes were modified to increase focus on that competency.

#### **2.6.E DESCRIPTION OF THE MANNER IN WHICH COMPETENCIES ARE DEVELOPED, USED AND MADE AVAILABLE TO STUDENTS**

When ColoradoSPH was formed in 2008, competencies were created based on competencies for existing programs (e.g., the MSPH at CU Anschutz and the MPH at UNC, as well as the MS and PhD programs at CU Anschutz) and the competencies recommended by the Association for Schools of Public Health (ASPH, now ASPPH). Faculty committees were established for each degree, core area, and concentration or focus area. Faculty knowledge and experience were used to collaboratively develop and refine the competencies.

In a process that began in summer 2013 and concluded in December 2014, competencies were thoroughly re-examined for each degree, core area, and concentration or focus area. The process was faculty-driven within each department, and involved review of content areas for the Certified in Public Health exam (two ColoradoSPH faculty members sat on CPH consensus committees that developed the content areas); review of recent ASPPH recommendations; reflection on advances and changes in the field via informal feedback from employers and public health practitioners; reflection on Bloom's taxonomy (e.g., Anderson, Lorin W., Krathwohl, David R., eds. (2001). *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives*. Allyn and Bacon); mapping of competencies to required coursework. Through an iterative process involving department faculty and the Education and Curriculum Committee, a revised set of competencies for each program was finalized.

After finalization of competencies, gaps in the curriculum were identified and courses were modified where necessary to assure learning activities to address all competencies. Competencies are listed on all ColoradoSPH syllabi. Students are alerted to competencies in a baseline competency survey that they complete upon entering their program. Competencies are available on the ColoradoSPH website



(<http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/index.aspx>) and in student handbooks for each program. In website descriptions of each program/concentration, competencies for that program/concentration are presented. Course syllabi list the competencies to be addressed in each course.

In the MPH and DrPH programs, students identify specific competencies that they will address in their practicum experiences, and, at the completion of the experience, they write a reflection on their competency development. Students identify competencies to be addressed in their capstone projects, and rate themselves on those competencies before and after project completion.

#### **2.6.F DESCRIPTION OF THE MANNER IN WHICH THE SCHOOL PERIODICALLY ASSESSES CHANGING PRACTICE OR RESEARCH NEEDS AND USES THIS INFORMATION TO ESTABLISH THE COMPETENCIES FOR ITS EDUCATIONAL PROGRAMS**

The academic administration works closely with the School's public health practice administration to monitor what is happening in the field of public health that could affect revisions in the competencies. The associate dean for public health practice and staff are actively involved with public health practitioners, public health professionals, and grass-roots organizations that provide input on current issues and needs related to public health practice. With the start-up of the Rocky Mountain Public Health Training Center (RM-PHTC) in 2015, the needs assessment for both Colorado and the region will now be led by the University of Utah, which is a collaborating partner in the 6-state regional training center. A regional assessment will be done on behalf of the RM-PHTC by the University of Utah in the May-August 2015 timeframe. That assessment will enumerate public health workers in the region, and will sample both public health agencies and primary healthcare agencies to assess their perceived needs and barriers for training. This assessment will be harmonized to methods now in development for the 10-region HRSA national Public Health Training Centers (PHTC) Network.

Our faculty director for practice-based learning attended the Engaging Communities in Education and Research Conference in Vail, CO, in September 2014, where she noted the need for policy knowledge and communication skills. Another member of the PBL team interviewed six practicum preceptors in 2012 and noted the need for greater biostatistics and epidemiology skills. Input such as this is used when assessing and revising our competencies, as well as when designing and delivering ColoradoSPH coursework related to the competencies.

In winter 2015, key informant interviews were conducted with 12 employers. This is described in section 2.7.e. Many ColoradoSPH administrators and faculty are involved in national and international associations and study sections where their interactions with others in the field provide input into deliberations about future educational and training needs. The associate deans, chairs, and the dean participate in the ASPPH in order to learn from and contribute to discussions regarding the future of public health education. For example, the dean is a member (and interim chair) of the ASPPH Accreditation and Credentialing Committee. In this role, he learns from and contributes to discussions of approaches to meet future educational and training needs. We also collect information from students and alumni as they exit the programs to determine if they note any program deficiencies that need to be addressed. Suggestions have led to changes in competencies, courses, and programs.

## **2.6.G ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met.

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### **STRENGTHS**

For each degree program and area of specialization within each program identified in the instructional matrix, there are clearly stated competencies that guide the development of educational programs. Courses and other learning experiences are mapped to the competencies, and competencies are presented in course syllabi, student handbooks, and on the ColoradoSPH website for prospective and current students.

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### **WEAKNESSES**

While faculty knowledge and experience with the skills needed in the workforce, whether in public health practice or research settings, are used to formulate competencies, a more systematic method of interacting with employers on a regular basis would enhance the development of competencies that are highly responsive to workforce needs. The self-study process revealed a need to enhance assessment of competency development in the MPH capstone experience.

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### **PLANS**

We will continue ongoing monitoring of our competencies to stay responsive to workforce needs. We will conduct key informant interviews with employers every two years. We are continuing to experiment with methods to assess competency development in the MPH capstone. Starting in spring 2015, we implemented an online assessment form for preceptors to provide evaluative input for their students' capstone grades. Starting in fall 2015, the student's faculty advisor will also complete an online assessment form at the completion of the student's capstone.

## 2.7 ASSESSMENT PROCEDURES

### 2.7.A DESCRIPTION OF THE PROCEDURES USED FOR MONITORING AND EVALUATING STUDENT PROGRESS IN ACHIEVING THE EXPECTED COMPETENCIES, INCLUDING PROCEDURES FOR IDENTIFYING COMPETENCY ATTAINMENT IN PRACTICE OR RESEARCH, AS APPLICABLE, AND IN CULMINATING EXPERIENCES

Competency attainment is assessed in multiple ways. These are described below.

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#### COURSE PERFORMANCE

While course grades are acknowledged to not assess integration of competencies, they do provide some information on the achievement of competencies as a student progresses through a degree program. Course grades reflect performance on assignments, quizzes, exams, significant papers (e.g., developed over an entire semester), group discussions, and field experiences (e.g., group projects that complete a real-world community assessment for a public health “client”). Faculty feedback on exams and other assignments can help students to understand where their competency development is limited, and guide them to where they need to place more effort. With the exception of the MPH and DrPH practicum courses, all courses award letter grades (A-F). Students are required to achieve a B- or better for all core MPH courses and required courses in their concentrations. Students in the PhD and MS programs are required to achieve a B- or better for all courses applied towards their degree. Across all programs, students are required to maintain a B (3.0) GPA and must have a 3.0 GPA to graduate.

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#### QUALIFYING AND COMPREHENSIVE EXAMS

Doctoral students, depending on their program, take qualifying and/or comprehensive exams testing their knowledge and ability to apply knowledge in their respective fields. These include a combination of written and oral exam components. These are described more thoroughly in Sections 2.11.c (PhD) and Section 2.5.a (DrPH).

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#### CULMINATING EXPERIENCE

The culminating experience for each program provides a setting in which faculty can observe a student’s ability to integrate their learning in the application of competencies. All culminating experiences in ColoradoSPH involve a significant practice or research-based experience (i.e., capstone project, research paper, thesis or dissertation).

**MPH CAPSTONE:** Competencies are assessed various ways in the MPH capstone experience. First, each student selects a set of five to eight competencies specific to their capstone project that they expect to focus on in their project. These competencies are reviewed and approved by their academic advisor. At the beginning of the capstone course, each student rates him/herself on these self-selected competencies, as well

as seven that the capstone course is intended to address for all students. At the end of the course, students again rate themselves on these competencies. We are currently working to integrate a faculty and/or preceptor evaluation of competencies addressed and acquired in the capstone experience. All MPH students present their capstone projects in both oral and poster presentations. These provide an opportunity for faculty to assess the degree to which the student is able to respond to questions about his/her project, providing further evidence of competency achievement. Students receive a final letter grade for the capstone, which is reflective of their ability to demonstrate their understanding and achievement of competencies related to the project and its integration into the broader context of public health.

**DRPH, MS, AND PHD THESIS OR DISSERTATION:** Students in these programs follow a traditional academic approach to assessing competencies, which includes major written documents (thesis or dissertation proposals and final documents) and oral exams testing their understanding and achievement of competencies. Committee members also assess competencies on an ongoing basis at committee meetings throughout the thesis/dissertation process. Students are assessed for their understanding of their specific project, as well as how that project fits into and contributes to their broader field.

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## **MPH AND DRPH PRACTICUM**

These field experiences, in which students are placed in public health settings where they address real-world public health problems, provide experiences to develop competencies. All students identify competencies in their learning plan that they will focus on during their practicum experience. Assessments used are available in Resource File 2.4.a.3(3) (DrPH) and 2.4.a.5 (MPH).

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## **RESEARCH**

In the PhD programs, students are required to meet with their committees at least twice a year once they have passed their comprehensive exams. In these meetings, student progress in addressing the goals of the degree, as well as progress on the dissertation project, are discussed, and students are provided written recommendations for further career development.

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## **INCOMING/EXIT SURVEYS**

All students in all programs are requested to complete an online self-rating on their program's competencies when they enter and graduate from their program. The online exit survey competency assessment for the MPH was instituted in 2008, asking students to rate themselves on core MPH competencies and a single general question on competencies in their concentration/focus area. In fall 2013, we added questions about the full set of concentration/focus area competencies to the incoming student survey. In summer 2014, a full competency survey was added to the exit survey for the MPH so that pre/post change could be assessed. Beginning in fall 2014, incoming and exit competency surveys were instituted for all other programs (MS, PhD, and DrPH). These surveys (available in Resource File 2.7.a(1)) ask students to rate themselves on a 4-point scale for the core and concentration/focus area competencies. We maintain a high response rate (90-100%) for these surveys by blocking registration for future semesters until the survey is completed (for the incoming student survey) and delaying diploma pick-up (for the exit survey).

The institution of pre/post self-assessments allows us to estimate changes in competencies at the group level (and eventually at the individual level). Because these data collections were only fully in place in fall 2014, we cannot yet match individuals for pre/post change, but we can compare by groups (e.g., reports on competencies of those graduating in spring 2014 can be compared with those entering in fall 2014). A pre/post comparison for each MPH competency is available in Resource File 2.7.a(2). On a 4-point scale (0-3), mean ratings on each competency for incoming students were mostly in the range of 0.70- 1.30, with a few above 1.5 (out of a total of 70 individual competencies). The lowest incoming ratings were in the areas of environmental and occupational health and health systems, management and policy. Pre/post differences are generally around +1 point. Differences are highest for epidemiology competencies, and lowest for environmental and occupational health and biostatistics. It is important to note that these data are not stratified by the concentration areas of the students, and since epidemiology is among the larger programs, it is not surprising that competency development ratings are higher for that area. It also is important to note that these comparisons reflect incoming students entering the program in summer 2014 and later, and graduating students in fall 2013 and later, and there may be differences between these groups of students. The data are, however, helpful for pinpointing specific competencies that we may not be adequately addressing. Two such competencies are one related to understanding the impact of genetics and genomics on public health (.54 difference) and one related to working collaboratively with communities (.57 difference).

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## ALUMNI SURVEY

An alumni survey is administered to graduates at one, four, seven, and ten years post-graduation. In addition to other content areas in the survey, graduates are asked to rate their overall preparation for their careers, and to provide specific comments. Starting with the spring 2015 alumni survey, we are collecting more specific information about the development of competencies relevant to their professional careers.

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## ONGOING EVALUATION OF STUDENT PROGRESS

After submission of grades for each semester, students are assessed for adequate progress in their programs and those who are faltering are identified and interventions are implemented.

**ACADEMIC PROBATION:** Students are required to maintain a GPA of at least 3.0 on a 4.0 scale. Each semester, a report is generated to identify students falling below 3.0. For these students, the student's program director and academic advisor are notified. It is required that the director and/or advisor meet with the student to develop a plan to bring the student back on track. Reasons for inadequate achievement in classes are identified and specific measures are determined. For example, a problem that we have seen is that students take too heavy of a course load, especially in summer when the semester is about 30% shorter than fall or spring. Additionally, many of our students work a significant number of hours per week. A typical response to this issue is to coach the student in taking a more manageable course load in upcoming semesters and/or decrease the hours they devote to their job, and to only embark on a heavier course load when they have firmly established their ability to be successful.

**MAXIMUM TIME TO GRADUATE:** Each program has an established maximum time for completion (generally five years for a master's degree and seven years for a doctoral degree). Each semester, a report is generated to identify students who are one year prior to their maximum time. The student, program, and

academic advisor are notified so that they can provide the Academic Affairs Office with a plan. In special cases, extensions are granted for program completion.

## 2.7.B IDENTIFICATION OF OUTCOMES THAT SERVE AS MEASURES BY WHICH THE SCHOOL WILL EVALUATE STUDENT ACHIEVEMENT IN EACH PROGRAM, AND PRESENTATION OF DATA ASSESSING THE SCHOOL'S PERFORMANCE AGAINST THOSE MEASURES FOR EACH OF THE LAST THREE YEARS

TABLE 2.7.B(1) MEASURABLE OUTCOMES RELATED TO STUDENT ACHIEVEMENT

	Outcome	Target	12-13	13-14	14-15
1.5 Graduate professionals who are competent and prepared to work in public health or other health-related areas or are prepared to pursue further educational opportunities	Job placement/continued education rates of graduates within 12 months of graduation	90%	100%	99%	98%
	Graduates' self-assessment of competency attainment	5.0/7.0 on relevant survey items	5.2	5.6	6.0
	Preceptors' satisfaction with quality of students' practica work (number of items rated satisfactory out of 14 total)	MPH – 12/14	13.8	13.9	13.9
		DrPH – 12/14	n/a	n/a	14.0
	Pass rates for certification exams (CHES and CPH)	90%	100%	100%	100%
	Percent of practica that are done in community settings	90%	94%	90%	86%
	Percent of capstone projects that are done in community settings	60%	68%	71%	64%
1.1 Recruit and retain students of excellence	Graduation rate of MPH/MS students (within 5 years)	MPH – 80%	94%	90%	92%
		MS – 80%	100%	63%	63%
	Graduation rate of DrPH/PhD students (within 7 years)	DrPH – 80% <sup>1</sup>	n/a	n/a	n/a
		PhD – 80%	86%	83%	50%
	Graduation rate of dual degree students (both degrees within 5 years of entering the MPH program)	80% <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>	n/a <sup>1</sup>
	Median time to graduation, by degree	MPH – 2 years	2	2	2
		DrPH – 5 years <sup>1</sup>	n/a	n/a	n/a
		MS – 3 years	3	3.5	2
		PhD – 5 years	8	7	4

<sup>1</sup> The program has not been in place long enough to assess this outcome.

TABLE 2.7.B(2) (TEMPLATE 2.7.1) STUDENTS IN MPH DEGREE, BY COHORTS ENTERING BETWEEN 2008-09 AND 2009-10

Cohort of Students		2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
2008-09	# Students entered	62						
	# Students withdrew, dropped, etc.	2						
	# Students graduated	5						
	Cumulative graduation rate	8.1%						
2009-10	# Students continuing at beginning of this school year	55	76					
	# Students withdrew, dropped, etc.	2	6					
	# Students graduated	33	6					
	Cumulative graduation rate	61.3%	7.9%					
2010-11	# Students continuing at beginning of this school year	20	64	109				
	# Students withdrew, dropped, etc.	0	2	6				
	# Students graduated	10	40	11				
	Cumulative graduation rate	77.4%	60.5%	10.1%				
2011-12	# Students continuing at beginning of this school year	10	22	92	138			
	# Students withdrew, dropped, etc.	0	0	0	7			
	# Students graduated	9	17	50	6			
	Cumulative graduation rate	91.9%	82.9%	56.0%	4.3%			
2012-13	# Students continuing at beginning of this school year	1	5	42	125	144		
	# Students withdrew, dropped, etc.	0	0	0	3	13		
	# Students graduated	1	4	31	57	6		
	Cumulative graduation rate	93.5%	88.2%	84.4%	45.7%	4.2%		
2013-14	# Students continuing at beginning of this school year	0	1	11	65	125	163	
	# Students withdrew, dropped, etc.	0	0	1	5	5	13	
	# Students graduated	0	1	8	41	73	6	
	Cumulative graduation rate	93.5%	89.5%	91.7%	75.4%	54.9%	3.7%	
2014-15	# Students continuing at beginning of this school year	0	0	2	19	47	145	216
	# Students withdrew, dropped, etc.	0	0	0	0	0	0	2
	# Students graduated	0	0	0	15	35	78	4
	Cumulative graduation rate	93.5%	89.5%	91.7%	86.2%	79.2%	51.5%	1.9%

TABLE 2.7.B(3) (TEMPLATE 2.7.1) STUDENTS IN DRPH DEGREE, BY COHORTS ENTERING BETWEEN 2008-09 AND 2009-10

Cohort of Students		2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
2009-10	# Students continuing at beginning of this school year	1					
	# Students withdrew, dropped, etc.	0					
	# Students graduated	0					
	Cumulative graduation rate	0.0%					
2010-11	# Students continuing at beginning of this school year	1	7				
	# Students withdrew, dropped, etc.	0	1				
	# Students graduated	0	0				
	Cumulative graduation rate	0.0%	0.0%				
2011-12	# Students continuing at beginning of this school year	1	6	4			
	# Students withdrew, dropped, etc.	0	0	2			
	# Students graduated	0	0	0			
	Cumulative graduation rate	0.0%	0.0%	0.0%			
2012-13	# Students continuing at beginning of this school year	1	6	2	5		
	# Students withdrew, dropped, etc.	0	0	0	1		
	# Students graduated	0	0	0	0		
	Cumulative graduation rate	0.0%	0.0%	0.0%	0.0%		
2013-14	# Students continuing at beginning of this school year	1	6	2	4	5	
	# Students withdrew, dropped, etc.	0	0	0	0	0	
	# Students graduated	0	0	0	0	0	
	Cumulative graduation rate	0.0%	0.0%	0.0%	0.0%	0.0%	
2014-15	# Students continuing at beginning of this school year	1	6	2	4	5	6
	# Students withdrew, dropped, etc.	0	0	0	0	0	0
	# Students graduated	0	0	0	0	0	0
	Cumulative graduation rate	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Note: this program welcomed its first cohort in 2009; at the time of this report, no student has graduated or reached the seven year graduation term.



TABLE 2.7.B(4) (TEMPLATE 2.7.1) STUDENTS IN MS DEGREE, BY COHORTS ENTERING BETWEEN 2008-09 AND 2009-10

Cohort of Students		2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
2008-09	# Students entered	3						
	# Students withdrew, dropped, etc.	0						
	# Students graduated	0						
	Cumulative graduation rate	0.0%						
2009-10	# Students continuing at beginning of this school year	3	8					
	# Students withdrew, dropped, etc.	0	2					
	# Students graduated	0	0					
	Cumulative graduation rate	0.0%	0.0%					
2010-11	# Students continuing at beginning of this school year	3	6	8				
	# Students withdrew, dropped, etc.	0	1	1				
	# Students graduated	1	2	0				
	Cumulative graduation rate	33.3%	25.0%	0.0%				
2011-12	# Students continuing at beginning of this school year	2	3	7	11			
	# Students withdrew, dropped, etc.	0	0	0	3			
	# Students graduated	1	2	0	0			
	Cumulative graduation rate	66.7%	50.0%	0.0%	0.0%			
2012-13	# Students continuing at beginning of this school year	1	1	7	8	11		
	# Students withdrew, dropped, etc.	0	0	0	0	1		
	# Students graduated	1	0	3	3	0		
	Cumulative graduation rate	100.0%	50.0%	37.5%	27.3%	0.0%		
2013-14	# Students continuing at beginning of this school year	0	1	4	5	10	15	
	# Students withdrew, dropped, etc.	0	0	0	0	0	2	
	# Students graduated	0	1	2	4	1	0	
	Cumulative graduation rate	100.0%	62.5%	62.5%	63.6%	9.1%	0.0%	
2014-15	# Students continuing at beginning of this school year	0	0	2	1	9	13	16
	# Students withdrew, dropped, etc.	0	0	0	0	0	0	0
	# Students graduated	0	0	0	0	2	4	0
	Cumulative graduation rate	100%	62.5%	62.5%	63.6%	27.3%	26.7%	0%

TABLE 2.7.B(5) (TEMPLATE 2.7.1) STUDENTS IN PHD DEGREE, BY COHORTS ENTERING BETWEEN 2006-07 AND 2008-09

	Cohort of Students	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
2006-07	# Students entered	7						
	# Students withdrew, dropped, etc.	1						
	# Students graduated	0						
	Cumulative graduation rate	0.0%						
2007-08	# Students continuing at beginning of this school year	6	6					
	# Students withdrew, dropped, etc.	0	0					
	# Students graduated	0	0					
	Cumulative graduation rate	0.0%	0.0%					
2008-09	# Students continuing at beginning of this school year	6	6	4				
	# Students withdrew, dropped, etc.	0	1	1				
	# Students graduated	0	0	0				
	Cumulative graduation rate	0.0%	0.0%	0.0%				
2009-10	# Students continuing at beginning of this school year	6	5	3	4			
	# Students withdrew, dropped, etc.	0	0	0	0			
	# Students graduated	0	1	0	0			
	Cumulative graduation rate	0.0%	16.7%	0.0%	0.0%			
2010-11	# Students continuing at beginning of this school year	6	4	3	4	8		
	# Students withdrew, dropped, etc.	0	0	0	0	0		
	# Students graduated	0	1	0	0	0		
	Cumulative graduation rate	0.0%	33.3%	0.0%	0.0%	0.0%		
2011-12	# Students continuing at beginning of this school year	6	3	3	4	8	11	
	# Students withdrew, dropped, etc.	0	0	1	1	0	1	
	# Students graduated	5	2	0	0	0	0	
	Cumulative graduation rate	71.4%	66.7%	0.0%	0%	0.0%	0.0%	
2012-13	# Students continuing at beginning of this school year	1	1	2	3	8	10	11
	# Students withdrew, dropped, etc.	0	0	0	2	0	0	2
	# Students graduated	1	0	1	0	2	0	0
	Cumulative graduation rate	85.7%	66.7%	25.0%	0.0%	25.0%	0.0%	0.0%
2013-14	# Students continuing at beginning of this school year	0	1	1	1	6	10	9
	# Students withdrew, dropped, etc.	0	0	0	0	0	0	0
	# Students graduated	0	1	1	0	3	2	0
	Cumulative graduation rate	85.7%	83.3%	50.0%	0.0%	62.5%	18.2%	0.0%
2014-15	# Students continuing at beginning of this school year	0	0	0	1	3	8	9
	# Students withdrew, dropped, etc.	0	0	0	0	0	0	0
	# Students graduated	0	0	0	0	1	2	0
	Cumulative graduation rate	85.7%	83.3%	50.0%	0.0%	75.0%	36.4%	0.0%

TABLE 2.7.B(6)(TEMPLATE 2.7.2) DESTINATION OF MPH GRADUATES BY YEAR OF GRADUATION

Destination of MPH Graduates	2011-12 (n)	2012-13 (n)	2013-14 (n)
Employed	62	83	108
Continuing education/training (not employed)	7	11	7
Actively seeking employment	0	1	2
Not seeking employment (not employed and not continuing education/training, by choice)	0	2	1
Unknown	21	9	19
Total	90	106	137

TABLE 2.7.B(7)(TEMPLATE 2.7.2) DESTINATION OF MS GRADUATES BY YEAR OF GRADUATION

Destination of MS Graduates	2011-12 (n)	2012-13 (n)	2013-14 (n)
Employed	5	6	9
Continuing education/training (not employed)	0	1	0
Actively seeking employment	0	0	0
Not seeking employment (not employed and not continuing education/training, by choice)	0	0	0
Unknown	1	1	1
Total	6	8	10

TABLE 2.7.B(8)(TEMPLATE 2.7.2) DESTINATION OF PHD GRADUATES BY YEAR OF GRADUATION

Destination of PhD Graduates	2011-12 (n)	2012-13 (n)	2013-14 (n)
Employed	7	4	11
Continuing education/training (not employed)	0	0	0
Actively seeking employment	0	0	0
Not seeking employment (not employed and not continuing education/training, by choice)	0	0	0
Unknown	0	1	0
Total	7	5	11

We are generally meeting our targets. Our employment rates are high at more than 90%, and our graduation rates are generally high (over 80% for all degrees). More than 90% of practicum projects take place in community settings along with over 60% of capstone projects.

We experienced a drop in the graduation rate for MS students who matriculated in 2009-10 and 2010-11. For 2009-10, further exploration revealed that of eight students who began the MS in Biostatistics (the only MS program in ColoradoSPH at that time), one discontinued the program in the first year, one in the second year,

and one in the fourth year. Of the five who remained in the program, 100% graduated within the five-year period. For the 2010-11 MS cohort, there were two students in Epidemiology, who both graduated in their fifth year. We expected the cohort to achieve a graduation rate of 75% by five years, but two Biostatistics students did not graduate in 2014-15 as planned. This is a small program, and thus graduation rates can fluctuate dramatically when a small number of students do not reach completion. In the three years prior to 2008-09, our 5-year graduation rates were 80%, 50% (but in this cohort the final graduation rate was 87.5%), and 85.7%. Six MS students completed in spring of 2015 well before their 5-year time limit and the expected 5-year graduation rates for the 2011-12 and subsequent cohorts are 73%, 91% and 93%.

For the PhD programs, we generally have a high graduation rate (i.e., for 2006-07 and 2007-08, the 7-year rates are 85.7% and 83.3% respectively) but in 2008-09, the rate dropped to 50% when two out of four matriculated students withdrew by the end of the fourth year. For the 2009-10 cohort, we experienced a 75% withdrawal rate (3/4). However, the 2010-11 cohort has a 75% graduation rate after five years, and the 2011-12 cohort has a 36% graduation rate after only four years. Again, small numbers lead to a high degree of fluctuation. Still, there may be a need to examine selection criteria and mentoring for students in these programs in order to improve graduation rates.

### 2.7.C EXPLANATION OF THE METHODS USED TO COLLECT JOB PLACEMENT DATA AND OF GRADUATES' RESPONSE RATES TO THESE DATA COLLECTION EFFORTS

Job placement data are collected through several sources. The primary sources are the student exit survey and the alumni survey. The data are then supplemented by information gained in student communications directly with faculty and staff, as well as with our Manager of Career and Employer Relations. For example, students occasionally email their faculty advisor when they get a new position. A master database of graduates' employment is maintained by the School. Response rates to the exit survey and alumni survey over the past three years are shown in Table 2.7.c below.

TABLE 2.7.C EXIT AND ALUMNI SURVEY RESPONSE RATES BY YEAR

Survey	2011-12		2012-13		2013-14	
	# in Sample*	# (%) of Respondents	# in Sample <sup>1</sup>	# (%) of Respondents	# in Sample*	# (%) of Respondents
Exit Survey	104	40 (38.5%)	123	52 (42.3%)	158	104 (65.8%)
MPH	90	36 (40.0%)	105	47 (44.8%)	137	92 (67.2%)
MS-EPI	0	0 (0%)	4	3 (75.0%)	2	1 (50.0%)
MS-BIOS	7	2 (28.6%)	8	1 (12.5%)	8	7 (87.5%)
MS-HSR	0	n/a <sup>2</sup>	0	n/a <sup>2</sup>	0	n/a <sup>2</sup>
PhD-EPI	7	2 (28.6%)	1	1 (100%)	4	1 (25.0%)
PhD-BIOS	0	n/a <sup>2</sup>	3	1 (33.3%)	4	0 (0%)
PhD-HSR	0	n/a <sup>2</sup>	2	0 (0%)	3	3 (100%)
DrPH	n/a <sup>2</sup>					
Alumni Survey	n/a <sup>3</sup>	n/a <sup>3</sup>	299	64 (21.4%)	188	46 (24.5%)

<sup>1</sup>For the Exit Survey, this is the number who graduated; for Alumni Survey, this is the number in the annual sample cumulative across all programs.

<sup>2</sup> = not applicable; no graduates at the time the survey was conducted

<sup>3</sup> = not applicable; no alumni survey conducted

No alumni survey was conducted in 2011-12. In 2012-13, the Alumni Survey was sent to all graduates since 2008 who had an email address on file. In 2013-14, the alumni survey was sent to all graduates from 2009-10 and 2012-13 who had an email address on file. Our response rates have improved over time, with an overall response rate to the exit survey of 66% in 2013-2014. Our ongoing plan is to survey alumni at 1, 4, 7 and 10 years after graduation.

#### **2.7.D IN FIELDS FOR WHICH THERE IS CERTIFICATION OF PROFESSIONAL COMPETENCE AND DATA ARE AVAILABLE FROM THE CERTIFYING AGENCY, DATA ON THE PERFORMANCE OF THE SCHOOL'S GRADUATES ON THESE NATIONAL EXAMINATIONS FOR EACH OF THE LAST THREE YEARS**

Few of our MPH graduates have taken the Certified in Public Health (CPH) exam. Of the three students who have taken the exam in the past three years, all have passed. Twelve students have taken the exam since 2008, and all have passed. A total of three students have taken the Certified Health Education Specialist (CHES) exam, one each year, and all have passed. We believe that these exams, especially the CPH exam, would help us evaluate proficiency in our MPH graduates. We have developed a plan to better inform students about the opportunity to take the exam, which includes a student information session, announcement of testing dates, and making sure that our students are informed about their eligibility for these exams.

#### **2.7.E DATA AND ANALYSIS REGARDING THE ABILITY OF THE SCHOOL'S GRADUATES TO PERFORM COMPETENCIES IN AN EMPLOYMENT SETTING, INCLUDING INFORMATION FROM PERIODIC ASSESSMENTS OF ALUMNI, EMPLOYERS AND OTHER RELEVANT STAKEHOLDERS. METHODS FOR SUCH ASSESSMENTS MAY INCLUDE KEY INFORMANT INTERVIEWS, SURVEYS, FOCUS GROUPS AND DOCUMENTED DISCUSSIONS**

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### **ALUMNI SURVEY**

The data available from our alumni survey include one item that asks respondents to rate their overall preparation for their career, and to provide specific comments. As shown in Table 2.7.e below, ratings are between 4.7 and 5.7 on a 7-point scale. The MS and PhD students have somewhat higher ratings (5.1-5.7) compared to the MPH students (4.7-4.9). There is no clear trend over time. In open-ended responses, many students commented on the need for more practice with statistical analysis software (SAS and SPSS specifically). Students seemed to feel that the program prepared them well for careers in health departments and other public service positions, but prepared them less for work in non-profit and health industry. Many students commented on the need for more opportunities to integrate their skills in a practical setting. Overall, students noted that there was a strong research focus in their programs, with particular attention to quantitative methods. Multiple students mentioned that they would like to see qualitative methods courses integrated into the curriculum, and that they would like more emphasis on "hard skills" and less on theory. One HSMP student mentioned that s/he would like instruction in policy design and implementation processes to be as comprehensive as instruction on financial aspects of policy. One student requested coursework in public health leadership and policy (separate from health care leadership and policy).

TABLE 2.7.E ALUMNI SURVEY RATINGS OF OVERALL PREPARATION FOR CAREER

Group	2013 Survey		2014 Survey	
	N	Mean	N	Mean
Overall preparation for career (1-not at all, 7-completely)				
All	62	4.9	55	4.9
MPH	48	4.6	49	4.9
MS, PhD	14	5.9	6	5.1
Spring 2009 and Previous Graduates	11	5.3		
2009-10 Graduates	12	5.0	17	4.8
2010-11 Graduates	29	4.6		
2011-12 Graduates	10	5.4		
2012-13 Graduates			38	4.9

Note: Grey cells indicate group not included in indicated collection cycle

## EMPLOYER KEY INFORMANT INTERVIEWS

In winter 2015, we identified individuals in supervisory positions within agencies that employ our graduates from across our region, representing local and state public health agencies, hospitals, healthcare systems and other government agencies. We sought a mix of those in rural and urban areas. Twelve key informant interviews were completed. Participants were asked about the strengths and weakness of our graduates relative to entering the workforce, and suggestions for improvement of our programs. The full report is available in Resource File 2.7.e(1).

The overall feedback was that our students have strong content knowledge and a research-focused background, which is important and valuable but gives them less than the desired amount of experience in applying their theoretical knowledge. Public health practice should be a bigger focus in the curriculum, and students should have more opportunities to engage in practice and engage with practitioners. A specific skill set that seems to be lacking among our students is a strong understanding of the function and functioning of state, local, and institutional policy. This was cited often as a vital skill for public health work and, though several employers ceded that this often comes with on-the-job experience, the general feeling is that our students would benefit from a stronger understanding of the function of policy in changing the public health landscape and familiarity with political dynamics that impact public health issues. Three participants mentioned that our students seem to be lacking in mentorship, and would benefit from closer consultation with people in their desired fields and areas of expertise to help them better tailor their learning and see the application of their coursework to their career goals.

In addition to the reported need for more emphasis on competencies related to policy development and navigation, it was suggested that we increase our focus on health equity, so that our students can understand how their work and interests translate into reducing health disparities. According the viewpoint of several key informants, this is one of the main concerns of all public health work, and should be central, especially to capstone and practicum projects.

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## UNC ADVISORY BOARD FOCUS GROUP

The ColoradoSPH faculty at UNC met with the UNC Community Advisory Board in spring 2014 to discuss specific knowledge/skills/experience that would be ideal for an entry-level MPH employee to possess. Meeting minutes are available in Resource File 2.7.e(2).

The advisory board's recommendations focused primarily in six areas.

- Students should acquire skills for working with communities, including cultural competence and patience.
- Students should acquire a variety of skills to conduct needs assessments, including both quantitative and qualitative methodological skills.
- Students need a range of skills related to program planning, implementation and evaluation, including the ability to write SMART objectives, apply behavioral theory, and develop effective messages for delivery through a variety of media channels.
- Students need to be competent in public speaking and written communications, and particularly grant writing.
- Students should gain knowledge of health policy and build advocacy skills.
- Students need to develop leadership skills.

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## FOCUS GROUP OF GRADUATES

In spring of 2015, the associate dean for academic affairs and program evaluation coordinator conducted a focus group with ColoradoSPH alumni who had graduated from the program in 2013 or earlier. Sixteen alumni were in attendance, and included MPH graduates from seven concentrations across all three campuses, one PhD graduate, one MSPH graduate, and one MPH/DVM dual-degree graduate. Graduates were asked to reflect on what they feel were the strengths and weaknesses of their programs in preparing them for their professional careers, and suggest improvements to current programs.

Several strengths of the programs were discussed. Participants generally judged that our alumni emerge from the program with a strong understanding of research methods, and a keen ability to critically evaluate research. Those alumni who currently work with ColoradoSPH practicum and capstone students noted that research acumen is a particular strength among our students compared to MPH students from other schools. The interdisciplinary exposure offered by the MPH core courses was also cited as an asset in practice and employment. The core courses imbued a vocabulary and baseline competencies that allow our graduates to intelligently engage with public health practitioners across disciplines. Students did emphasize, however, that they would have benefitted from more depth in the core courses, and from a stronger practical (as opposed to theoretical) focus. Alumni commented that among their most valuable courses were those that taught practical application of skills, such as program planning and grant writing, and suggested that we incorporate more elements of hard-skill-building and application-focus into primarily theoretical core courses. There was consensus on a need to focus more intently on teaching writing and communication skills to appeal to a broad range of audiences, such as health care executives, health care providers, policymakers, and lay audiences. Though some participants cited significant practice in these arenas through their ColoradoSPH coursework, all agreed that it should be a greater focus across all program concentrations.

When asked about emphases on cultural competency and health disparities, alumni responded in a similar vein. They reported that while the program made them aware of social determinants of health and health inequities, and gave them a strong theoretical understanding of cultural competence, they did not feel that it provided them with enough opportunity to address these issues practically. They judged that the discussions around health disparities were more problem-driven than solution-driven. They suggested that the school offer more opportunities, curricular or extracurricular, for students to engage with the community and gain experience working with underserved populations.

Other key points included critiques of practicum and capstone experiences, advising systems, and professional development support. A full summary of the focus group findings can be found in Resource File 2.7.e(3).

#### **2.7.F ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met with commentary.

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#### **STRENGTHS**

Our graduation rates are generally high, as are our employment rates. We have examined competency development from multiple angles, including faculty evaluations in culminating experiences, employer perceptions, and graduate self-report. Analyses based on self-report and employer interviews suggest that our graduates are attaining competencies that are a benefit in the workplace. Over time, our response rate to the exit survey of graduates has improved, providing increasingly helpful data. The results point to specific improvements needed.

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#### **WEAKNESSES**

We consider assessment of competencies to be a challenge and continue to work towards improving our measurements of competency development. Our competency assessment of alumni has included only one general question about preparation for the workforce. Our assessment of competencies from the perspective of employers, while useful, has lacked regularity. In our MPH capstone, students self-assess their competency development but there has been no systematic assessment by faculty and preceptors.

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#### **PLANS**

We plan to develop a systematic approach to employer feedback, rather than relying on sporadic efforts, anecdotal feedback and perceptions of faculty based on interactions with the practice community. We plan to conduct focus groups of alumni on a regular schedule, in conjunction with plans to develop more of a community among our alumni. Specifically, we will conduct employer interviews and alumni focus groups every two years. In the 2015-16 academic year, we will add more extensive competency measures to our alumni survey and implement methods for increasing the response rate to the alumni survey.



## 2.8 OTHER GRADUATE PROFESSIONAL DEGREES

Not applicable. ColoradoSPH does not offer any other graduate professional degrees.

## 2.9 BACHELOR'S DEGREES IN PUBLIC HEALTH

Not applicable. ColoradoSPH does not offer a bachelor's degree in public health.

## 2.10 OTHER BACHELOR'S DEGREES

Not applicable. ColoradoSPH does not offer any other bachelor's degrees.



## 2.11 ACADEMIC DEGREES

### 2.11.A IDENTIFICATION OF ALL ACADEMIC DEGREE PROGRAMS, BY DEGREE AND AREA OF SPECIALIZATION

As shown in the instructional matrix (Criterion 2.1.a), the MS and PhD are offered in Biostatistics, Epidemiology, and Health Services Research.

### 2.11.B IDENTIFICATION OF THE MEANS BY WHICH THE SCHOOL ASSURES THAT STUDENTS IN ACADEMIC CURRICULA ACQUIRE A PUBLIC HEALTH ORIENTATION

Students in academic programs are required to take 3 credits of epidemiology (EPID 6630, which is the core epidemiology course for the MPH), and 3 credits of a broad introduction to public health. The latter can be met with Foundations in Public Health (PUBH 6600, 2 credits) and History of Public Health (EPID 6601, 1 credit) or with the 3-credit Public Health in the Global Community (CBHS 6619). Any of these may be waived and replaced with elective credits if the student enters the program with an MPH degree or previous and equivalent graduate-level coursework. An exception is students in the MS in Health Services Research, Policy and Administration. Their program requirements include the MPH core class CBHS 6610, Community and Behavioral Factors in Health. Thus, they are required to take EPID 6630 (3 credits) and PUBH 6600 (2 credits), but not EPID 6601 (1 credit).

PUBH 6600, Foundations in Public Health, provides students with an overview of key concepts underlying public health in historical and contemporary perspective. The course includes attention to the main functions of public health as well as ethical principles associated with public health practice. Course objectives include the following:

- Derive and defend definitions of public health
- Describe the origins of public health concepts in western culture, including selected historical events, and major accomplishments in social perspective
- Describe the core functions of public health in the context of contemporary practice
- Critically examine key value issues underlying public health and how they affect policy and practice
- Examine selected strategies for advancing public health through population-level primary prevention
- Examine, in broad terms, major contemporary public health issues and approaches including infectious disease, chronic disease, environmental health issues, and injury

While the emphasis on specific topics within public health varies by semester and instructor, all students receive a broad exposure to principles of public health. Syllabi can be reviewed in Resource File 4.3.c.3(2).

In addition to the above 6 credits of epidemiology and public health, students in the MS and PhD programs are all exposed to public health through courses in their own areas. For example, students in the MS in Biostatistics take a number of biostatistics courses in which the curriculum is oriented towards the use of statistics to understand public health problems. Students in the MS in Health Services Research, Policy and Administration take a number of courses related to the health system, as well as the core MPH course CBHS 6610, Social and Behavioral Factors in Health. Students in the MS in Epidemiology are required to take a

number of courses in epidemiology that cover a variety of public health problems, such as chronic disease epidemiology, communicable disease, and injury epidemiology and control. They also take biostatistics courses that reference public health problems.

The three PhD programs require that students either enter with an MS or MPH that includes the above 6 credits or equivalent, or complete the related course work as part of their PhD studies. Requirements for the basic epidemiology course (EPID 6630) and Foundations in Public Health course (PUBH 6600) are specified for the PhDs in Biostatistics and Health Services Research. For the PhD in Epidemiology, these courses are considered prerequisites of the program, but may be completed after admission.

Specific curriculum requirements for the academic degrees can be found at the links in Table 2.11.b.

TABLE 2.11.B LINKS TO CURRICULUM REQUIREMENTS BY PROGRAM

Academic Program	Web link to Curriculum
MS in Biostatistics	<a href="http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/Biostatistics/Academics/Pages/MSBIOS.aspx">http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/Biostatistics/Academics/Pages/MSBIOS.aspx</a>
MS in Health Services Research, Policy and Administration	<a href="http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/HealthSystems/Academics/Pages/MS-HSR.aspx">http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/HealthSystems/Academics/Pages/MS-HSR.aspx</a>
MS in Epidemiology	<a href="http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/Epidemiology/Academics/Pages/MSEpi.aspx">http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/Epidemiology/Academics/Pages/MSEpi.aspx</a>
PhD in Biostatistics	<a href="http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/Biostatistics/Academics/Pages/PhDBIOS.aspx">http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/Biostatistics/Academics/Pages/PhDBIOS.aspx</a>
PhD in Health Services Research	<a href="http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/HealthSystems/Academics/Pages/PhDHealthServicesResearch.aspx">http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/HealthSystems/Academics/Pages/PhDHealthServicesResearch.aspx</a>
PhD in Epidemiology	<a href="http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/Epidemiology/Academics/Pages/PhDEPI.aspx">http://www.ucdenver.edu/academics/colleges/PublicHealth/departments/Epidemiology/Academics/Pages/PhDEPI.aspx</a>

## 2.11.C IDENTIFICATION OF THE CULMINATING EXPERIENCE REQUIRED FOR EACH DEGREE PROGRAM

### MS IN BIOSTATISTICS, EPIDEMIOLOGY, AND HEALTH SERVICES RESEARCH, POLICY AND ADMINISTRATION

MS programs are governed by the Graduate School (although they reside in ColoradoSPH). Students follow the rules of the Graduate School for their culminating experience. Students choose either a thesis or research paper. They write and give an oral presentation of their thesis or research paper proposal. Students write, submit and orally present/defend their work in a public seminar. The presentation is part of the final examination required by the Graduate School. The thesis or research paper contains original work in the student's field. A thesis is submitted to the Graduate School according to a required format. A research paper must be submitted to a peer-reviewed journal (exceptions can be made by the student's committee under certain circumstances). Graduate School guidelines for the thesis or research paper can be found at:

<http://www.ucdenver.edu/academics/colleges/Graduate-School/program-resources/Forms/Graduate%20Student%20Handbook.pdf>

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## PHD IN BIOSTATISTICS

Biostatistics PhD students take preliminary exams (required by the Graduate School), which are the same qualifying exams that the MS students take but require a higher passing level. They later take a second set of examinations of a similar format but covering all of their biostatistical coursework. Students next develop and write a dissertation proposal, then present it to their committee. This is the comprehensive examination required by the Graduate School. Finally, students write a dissertation containing original statistical research, which they present/defend in a public seminar (part of the final examination required by the Graduate School) and submit to the Graduate School.

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## PHD IN EPIDEMIOLOGY

Epidemiology PhD students are required to pass a written preliminary examination covering all major coursework core areas: epidemiology, biostatistics and research methods. Next, students take the comprehensive exam, which consists of both a written and an oral exam. The written exam is the student's dissertation research proposal. The oral exam is a defense of that proposal, as well as an oral exam on all major coursework areas. Upon passing the comprehensive exam, the student advances to candidacy and is required to write a dissertation based on their original research project. The dissertation demonstrates the student's mastery of a substantive area, including the application of that knowledge in conducting research related to a specific topic. The program requires that the dissertation identify three publishable units. All students are required to pass a final oral examination (the defense) and submit the dissertation within seven years of entering the program.

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## PHD IN HEALTH SERVICES RESEARCH

Health Services PhD students are required to pass a written preliminary exam (required by the Graduate School), which represents the core research methods coursework, including biostatistics, epidemiology, research methods and ethics in research. Next, students are required to pass a comprehensive oral exam that begins with the student presenting the first three chapters of their dissertation. Students are examined on health services research seminal literature, methods and policy on a general level, as well as on specific applications to their dissertation topic. Finally, students are required to pass a dissertation defense by demonstrating verbal and written communication, ability to perform independent investigation, contribution to the field of health services research, and impact upon health policy.

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### 2.11.D ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET

This criterion is met.

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## STRENGTHS

All MS and PhD students either enter their degree program with a background in public health or gain an understanding of public health through required coursework in epidemiology and public health, as well as through exposure to public health examples in the context of their primary area (biostatistics, epidemiology, health services research). Rigorous examinations and thesis work are required of all academic degree students.

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## **WEAKNESSES**

None.

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## **PLANS**

We will continue regular assessment of program quality and relevance to changes in the respective fields, and institute program improvements as necessary.

## 2.12 DOCTORAL DEGREES

### 2.12.A IDENTIFICATION OF ALL DOCTORAL PROGRAMS OFFERED BY THE SCHOOL

ColoradoSPH offers three PhD degrees (Biostatistics, Epidemiology, and Health Services Research) and the DrPH in three areas (Epidemiology, Community and Behavioral Health, and Environmental and Occupational Health), as shown in the Instructional Matrix (2.1.a).

### 2.12.B DESCRIPTION OF THE SPECIFIC SUPPORT AND RESOURCES AVAILABLE TO DOCTORAL STUDENTS, INCLUDING TRAINEESHIPS, MENTORSHIP OPPORTUNITIES, ETC

#### MENTORSHIP

The Biostatistics PhD has 18 faculty members qualified to serve as doctoral committee chairs or mentors. At least 10 of these are full-time faculty in ColoradoSPH. For the Epidemiology PhD and DrPH, there are 20 faculty who are qualified to serve as dissertation chairs or mentors. Ten of these are full-time faculty in the Epidemiology department. For Health Services Research, there are 42 faculty in the list of potential doctoral committee members. Since this is an interdisciplinary program, these are drawn from throughout the CU Anschutz campus, including the Clinical Sciences program, the CU School of Medicine, and the CU College of Nursing. Chairing these committees is restricted to the program directors (C. Battaglia and R. Lindrooth). For the Community and Behavioral Health DrPH, there are 23 primary faculty members who are eligible to serve as a dissertation committee chair. For the Environmental and Occupational Health DrPH, there are seven primary faculty members who are eligible to serve as dissertation committee chairs. As noted above, the 20 faculty who are eligible to serve as chairs for Epidemiology PhD students are also eligible to be dissertation committee chairs for the Epidemiology DrPH. For the DrPH, students in all three focus areas may work with primary mentors from among the 200+ faculty members of ColoradoSPH, including those with secondary, adjunct and clinical appointments. Many of these work in the community. DrPH students may also work with faculty from any of the three partner universities (CU Anschutz, UNC and CSU).

#### FINANCIAL SUPPORT

**COLORADOSPH MERIT-BASED SCHOLARSHIPS:** For the 2014-15 academic year, ColoradoSPH provided funds for merit-based doctoral scholarships as follows:

PhD – Biostatistics	\$40,000
PhD – Epidemiology	\$40,000
PhD – Health Services Research	\$40,000
DrPH – Epidemiology	\$40,000
DrPH – Community and Behavioral Health	\$40,000
DrPH – Environmental and Occupational Health	\$10,000
<b>TOTAL</b>	<b>\$210,000</b>

**OTHER SCHOLARSHIPS:** In addition to the above ColoradoSPH merit-based scholarships, all out-of-state students were awarded scholarships to cover the difference between in-state and out-of-state tuition for their first year of study. For the 2014-15 year, this amounted to more than \$100,000 in tuition scholarships. Epidemiology PhD students were eligible for a merit-based Hoffman-Hamman Scholarship to support dissertation research and/or academic progress (i.e., tuition, books, travel to research conferences). Two new awards were granted, and a third continued, for a total of \$9,528 in the 2014-15 academic year. Biostatistics PhD students are eligible for merit-based Strother Walker travel scholarships to attend conferences, and for the annual competitive Strother Walker award for an outstanding Biostatistics PhD student (\$500). Doctoral students are eligible to compete (along with master's students) for the Hoffman Disparities Scholarship, with awards typically in the amount of \$4,000 per year for two years. In the 2014-15 academic year, each student in the Epidemiology PhD program received some level of tuition support from the department. On average, first and second year students received support for 7 credits and students in years 3 and beyond received funding for 4 credits. In the 2015-16 academic year, three to four newly admitted students will be supported for full-time tuition by the Epidemiology department and ongoing students will receive 3-4 credits of support.

**FINANCIAL SUPPORT THROUGH EMPLOYMENT:** A limited number of Graduate Research Positions are available through individual faculty mentors that include a living stipend at the NIH level (\$27,000/year) and full tuition support. Currently six Biostatistics PhD students (67%) are supported on such RA positions through faculty mentors, collaborators, or the Colorado Biostatistics Consortium. Several Biostatistics MS students, most of whom are planning to transition to the PhD program upon completion of the MS, are also supported on RA positions. Many opportunities are available for Epidemiology and Biostatistics PhD students, as well as MS students intending to enter the PhD program, to serve as Teaching Assistants. TAs receive a standard stipend of \$3,600 per semester, which may vary depending on the number of course credits of the class, and class size. Pre-doctoral scholarships are available at the University level including the TL1 (T32) Pre-Doctoral Fellowship that includes a stipend at the NIH level, tuition, travel to a national meeting and research supplies. The departments of Biostatistics and Epidemiology are preparing an NIH T32 pre-doctoral training grant in the area of big data science, which would support several PhD students across those programs each year. One Biostatistics PhD student has recently received an individual NIH T32 dissertation fellowship. An Epidemiology PhD student was supported by a T32 grant through the CU School of Medicine's Department of Rheumatology.

Most PhD students are employed on research projects in the School. Most DrPH students have professional positions in public health agencies. Some of these agencies provide tuition reimbursement (e.g., Kaiser Permanente of Colorado). Doctoral students who hold regular (not student) research positions (e.g., Professional Research Assistant) at the University of Colorado are eligible for tuition waivers that cover up to 9 credits a year. Currently two Biostatistics PhD students and many Epidemiology PhD students are in such positions and receive these tuition waivers.

In 2014-15, all Biostatistics PhD students (except one who holds a position outside the university) received either full tuition support through an RA position, the ColoradoSPH doctoral scholarships mentioned above, or tuition waivers through a PRA position.

For the Health Services Research PhD program, in 2014-15, four students received TA stipends, three students had portions of their tuition covered by their employer (which, in some cases, was the School), and five



students received tuition scholarships (ColoradoSPH doctoral scholarships mentioned above). Thirteen students were employed in research positions, either within the university or with an affiliate organization.

Table 2.12.b summarizes the levels of funding for students in each of the doctoral programs for 2014-15. Financial support for each individual student is available in Resource File 2.12.b.

TABLE 2.12.B SUMMARY OF SUPPORT TO DOCTORAL STUDENTS, 2014-15

Focus Area	# of Students Enrolled	# of Students Received Support	Total Scholarship Support	Total Tuition Waiver Support	Total Earnings Through University Employment	Overall Total
PhD						
Biostatistics	9	7	\$70,794	\$7,428	\$231,216	\$309,438
Epidemiology	20	20	\$90,993	\$21,216	\$678,118	\$790,326
Health Services Research	20	13	\$103,260	\$12,670	\$289,009	\$404,938
DrPH						
Community and Behavioral Health	16	12	\$130,475	\$10,608	\$176,123	\$317,206
Environmental and Occupational Health	2	2	\$30,642	\$0	\$23,971	\$54,613
Epidemiology	7	5	\$23,282	\$0	\$12,393	\$35,676
<b>Totals</b>	<b>74</b>	<b>59</b>	<b>\$449,445</b>	<b>\$51,922</b>	<b>\$1,410,830</b>	<b>\$1,912,198</b>

## 2.12.C DATA ON STUDENT PROGRESSION THROUGH EACH OF THE SCHOOL'S DOCTORAL PROGRAMS

TABLE 2.12.C (TEMPLATE 2.10.1) DOCTORAL STUDENT DATA FOR ACADEMIC YEAR 2014-2015

	PhD			DrPH		
	Biostatistics	Epidemiology	Health Services Research	Epidemiology	Community & Behavioral Health	Environmental & Occupational Health
# newly admitted in 2014-15	2	7	5	2	2	2
# currently enrolled (total) as of 2014-2015	8	19	16	5	15	2
# passed comprehensive examinations during 2013-14 <sup>1</sup>	2	4	3	1	0	0
# advanced to candidacy (cumulative) during 2013-14	2	4	3	1	0	0
# graduated in 2013-14	4	4	3	0	0	0

<sup>1</sup>ColoradoSPH tracks passage of comprehensive examinations, rather than completion of coursework.

## 2.12.D IDENTIFICATION OF SPECIFIC COURSEWORK, FOR EACH DEGREE PROGRAM, THAT IS AIMED AT DOCTORAL-LEVEL EDUCATION

In ColoradoSPH, doctoral-level courses generally use course numbers in the 7000 and 8000 series, though a few use course numbers in the 6000 series.

### PHD IN BIOSTATISTICS

The curriculum for the PhD in Biostatistics breaks down into segments as follows:

- Biostatistics courses at the MS level: 25 credits
- Required Public Health breadth courses: 6 credits
- Required Biostatistics courses at the doctoral level: 6 credits
- Elective Biostatistics courses at the doctoral level: 9 credits
- Elective Health Sciences courses (graduate level): 3 credits
- Dissertation: 30 credits

#### REQUIRED (6 CREDITS REQUIRED)

- |           |   |
|-----------|---|
| BIOS 7731 | Advanced Mathematical Statistics I – 3 credits  |
| BIOS 7732 | Advanced Mathematical Statistics II – 3 credits |

#### ELECTIVES (9 CREDITS REQUIRED)

- |           |  |
|-----------|--|
| BIOS 7659 | Statistical Methods in Genomics – 3 credits      |
| BIOS 7712 | Analysis of Correlated Data – 1 credit           |
| BIOS 7713 | Statistical Methods for Missing Data – 2 credits |
| BIOS 7714 | Advanced Statistical Computing – 3 credits       |
| BIOS 7715 | Stochastic Modeling – 2 credits                  |
| BIOS 7716 | Topics in Statistical Genetics – 1 credit        |
| BIOS 7717 | Bayesian Biostatistical Methods – 3 credits      |

The total number of credits for didactic work is 49. The Biostatistics Student/Faculty Handbook is available at [http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Documents/14\\_15%20Handbooks/BIOS\\_Handbook\\_14\\_15\\_FINAL.pdf](http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Documents/14_15%20Handbooks/BIOS_Handbook_14_15_FINAL.pdf) and provides additional detail about the program and 18 faculty members who are qualified to serve as doctoral committee chairs or mentors. Ten of these are full-time faculty in the Biostatistics department, while the remaining eight are part-time or adjunct faculty with the department.

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## PHD IN EPIDEMIOLOGY

There are specific entry requirements for the PhD program in Epidemiology. Promising applicants lacking sufficient epidemiology, public health, chemistry, mathematics or biological training may be accepted contingent upon completion of specific courses prior to matriculation or within an approved period of time after admission. This includes the requirement for a broad introduction to public health, which includes 3 credits of epidemiology, and 3 credits of broad exposure to public health described in section 2.11.b. Once in the program, students complete a combination of courses that are at the master's and doctoral levels. Of note is that many of the courses required for the PhD in Epidemiology are considered to be master's level for students in Biostatistics or Biomedical Science areas. For Epidemiology PhD students, these are considered to be doctoral level because they serve to extend the student's expertise beyond the master's level in Epidemiology by allowing epidemiological principles to be applied through statistics and in relation to a strong understanding of biological processes. The result is a doctoral-level epidemiologist who can communicate and collaborate in cross-disciplinary teams and design epidemiological research that is advanced in its incorporation of biostatistical methods and biological mechanisms.

### MASTER'S LEVEL COURSES

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EPID 6631	Analytical Epidemiology – 3 credits
EPID 6626	Research Methods in Epidemiology – 3 credits
BIOS 6611	Biostatistical Methods I – 3 credits
BIOS 6612	Biostatistical Methods II – 3 credits

### DOCTORAL LEVEL COURSES

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EPID 6632	Advanced Epidemiology – 3 credits
EPID 7911	Epidemiologic Field Methods – 3 credits
EPID 7912	Developing a Research Grant – 3 credits
CLSC 7151	Research Ethics – 1 credit

### REQUIRED ANALYTIC METHODS IN EPIDEMIOLOGY (4 CREDITS)

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At least 4 credits from the following (or other courses as approved by the Director):

EPID 7915	Analytic Epidemiology modules (varying topics such as survival analysis, health risk assessment, survey data analysis, GIS) – 1-4 credits
BIOS 6623	Advanced Data Analysis – 3 credits
BIOS 6655	Statistical Methods in Genetic Association Studies – 3 credits

### BIOMEDICAL SCIENCES COURSES (6 CREDITS)

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These vary according to the student's interest and area of developing expertise. 6 credits are required at the graduate level.

## ELECTIVES (6 CREDITS)

Students select electives according to their interests.

## DISSERTATION

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EPID 8990 – 30 credits

The total number of credits for course work is 38. The total required for the degree is 68.

More specific information about the degree can be found in the Epidemiology Student/Faculty Handbook, available at:

[http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Documents/14\\_15%20Handbooks/EPI\\_Handbook\\_1415\\_FINAL.pdf](http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Documents/14_15%20Handbooks/EPI_Handbook_1415_FINAL.pdf). The handbook lists 18 faculty who are qualified to serve as dissertation chairs or mentors. Nine of these are full-time faculty in the Epidemiology department, and the remainder are part-time or have secondary or adjunct appointments with the Epidemiology department.

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## PHD IN HEALTH SERVICE RESEARCH

Admission into the PhD in Health Services Research requires a master's degree in a field related to health services research. Upon matriculation, students take a mix of coursework at the master's and doctoral levels. Of the 38 credits of course work, at least 13 are at the doctoral level.

## MASTER'S LEVEL COURSES (20 CREDITS MINIMUM)

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BIOS 6611	Biostatistical Methods – 3 credits
BIOS 6680	SAS Database Design and Management – 3 credits
EPID 6630	Epidemiology – 3 credits

One of the following options for basic public health skills:

PUBH 6600	Foundations in Public Health – 2 credits <u>and</u> EPID 6601 History of Public Health – 1 credit
CBHS 6619	Public Health in the Global Community – 3 credits
PUBH 6600	Foundations in Public Health – 2 credits <u>and</u> CBHS 6610 Social/Behavioral Factors and Health – 3 credits

Health Systems and Management elective – 3 credits

HSMP 6604	Health Care Economics – 3 credits
CLSC 6210	Clinical Science Research Seminar – 1 credit
CLSC 6270	Critical Appraisal Seminars in Clinical Sciences – 1 credit

## COGNATE COURSES (6 CREDITS)

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These may be master's or doctoral level; selected in consultation the student's with advisor.

## DOCTORAL LEVEL COURSES (13 CREDITS)

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CLSC 7101	Grant Writing I – 1 credit
CLSC 7150	Ethics and Regulation in Human Subjects Research – 1 credit
CLSC 7202	Clinical Outcomes Assessment and Applications – 3 credits
HSMP 7607	Methods in Health Services Research I – 3 credits
HSMP 7609	Methods in Health Services Research II – 3 credits
HSMP 7010	Foundations in Health Services Research – 2 credits

## DOCTORAL THESIS (30 CREDITS)

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## TOTAL PROGRAM CREDITS 69

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The total number of credits for course work is 39. The total required for the degree is 69.

More specific information about the degree can be found in the Health Services Research PhD Program Student Handbook, available at: <http://www.ucdenver.edu/research/CCTSI/education-training/clsc/phd-program/Documents/HSR%20PhD%20Handbook.pdf>

There are 42 faculty who are qualified to serve as doctoral committee members and only the program directors serve as dissertation chairs.

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## DRPH PROGRAMS

The DrPH degree is offered in three focus areas: epidemiology, community and behavioral health, and environmental and occupational health. All of these degrees require a prior master's degree and a minimum of 67 credit hours for completion of the DrPH. There are 13 credit hours of common coursework across the three programs, which encompass course work in leadership, management, proposal writing, and a cross-disciplinary public health seminar. All of these credits are at the doctoral level except for the management course. Students complete 12 credits in their focus area, which include a mix of specialized master's and doctoral-level courses. Students also complete a public health minor (6 credits), in a core public health area outside their own (e.g., Biostatistics, Epidemiology, Community and Behavioral Health, Health Systems, or Environmental and Occupational Health). These courses would most likely be at the master's level, but could be at the doctoral level. All students take 9 credits of "selectives," chosen in conjunction with their faculty advisor and/or dissertation committee, that build their specific area of expertise in preparation for their independent dissertation project. Two credits of Directed Reading further develop the student's area of expertise. A 4-credit, 240-hour practicum provides an experience to develop doctoral-level competencies. Finally, a 21-credit dissertation is the culminating experience. Specific information about the DrPH curriculum can be found at:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/DrPH.aspx>.

Doctoral level courses required in the DrPH programs include the following:

## FOR ALL DRPH STUDENTS

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CBHS/EPID 7020/7022 DrPH Seminar in Leadership -- 3 credits  
CBHS 7030/EPID 7030 DrPH Directed Reading – 2 credits  
EPID 7912 Developing a Research Grant – 3 credits

## FOR DRPH – COMMUNITY AND BEHAVIORAL HEALTH STUDENTS

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CBHS 7010 Latent Variable Methods – 3 credits  
CBHS 7670 CBH Advanced Seminar – 3 credits

## FOR DRPH – EPIDEMIOLOGY STUDENTS

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EPID 6632 Advanced Epidemiology – 3 credits  
EPID 7605 Research Methods with Secondary Data Sources – 3 credits

## FOR DRPH – ENVIRONMENTAL AND OCCUPATIONAL HEALTH STUDENTS

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EHOH 7631 Advanced Methods in Environmental and Occupational Health – 2 credits  
EHOH 7632 Advanced Field Investigations in Environmental and Occupational Health – 1 credit

More specific information about the degree can be found in the DrPH Student Handbook, available at:  
[http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Documents/14\\_15%20Handbooks/DrPH\\_Hanbook\\_14\\_15\\_FINAL.pdf](http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Documents/14_15%20Handbooks/DrPH_Hanbook_14_15_FINAL.pdf)

Doctoral committees must include at least two primary faculty from the student's focus area. For Community and Behavioral Health, this includes 25 faculty; for Epidemiology, 15 faculty, and for Environmental and Occupational Health, nine faculty.

## 2.12.E EXTENT TO WHICH THIS CRITERION IS MET

This criterion is met.

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## STRENGTHS

The six doctoral programs at the ColoradoSPH have access to faculty mentors who are leaders in their fields. Some departments are larger and have greater access to mentorship; these departments also have greater numbers of doctoral students. The doctoral degrees require a total of between 67 and 79 credit hours for completion. All doctoral programs have an adequate number of courses available beyond the master's level that are specifically developed for doctoral students. For the epidemiology programs in particular, a good portion of the doctoral curriculum is aimed at developing transdisciplinary expertise in biostatistics and the biomedical sciences, and the coursework is not necessarily at the doctoral level in those areas. The result is doctoral-level epidemiologists who can communicate and collaborate in cross-disciplinary teams and design epidemiological research that is advanced in its incorporation of biostatistical methods and attention to biological mechanisms. Many sources of funding are available to support doctoral students, including

scholarships, teaching assistantships, research assistantships, and tuition waivers for regular (not student) university employees.

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## **WEAKNESSES**

Providing financial support for all students, doctoral included, is a challenge.

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## **PLANS**

We recently added out-of-state tuition scholarships for Master's and Doctoral students, which has attracted more high quality out-of-state students. It is a goal to apply for and obtain training grants to provide increased support for doctoral students. Areas in progress are big data science, and under consideration are cancer prevention and control and maternal and child health.





## 2.13 JOINT DEGREES

### 2.13.A IDENTIFICATION OF JOINT DEGREE PROGRAMS OFFERED BY THE SCHOOL

ColoradoSPH currently offers five dual degree programs that involve the MPH (shown in the instructional matrix, Table 2.1.a): Doctor of Veterinary Medicine (DVM)/MPH; Doctor of Medicine (MD)/MPH; Doctor of Nursing Practice (DNP)/MPH; Master of Public Administration (MPA)/MPH; and Master of Urban and Regional Planning (MURP)/MPH. Our university refers to these as “dual” (rather than “joint”) because students are awarded two separate degrees rather than a single joint degree. For four of the five dual degrees, it is required that students finish the requirements for both degrees before either is conferred. For the DVM/MPH, the MPH is awarded at the time that 42 credit hours to be applied to the MPH are completed. Four additional dual degrees are under development. One of these, the Master of Social Work (MSW)/MPH is anticipated to start in 2016-17, with programs at both the CU Anschutz campus and at CSU. Before implementing a dual degree program, an MOU is established between the schools involved that outlines curriculum requirements and how the schools will share tuition and advising. MOUs for the programs are available in Resource File 2.13.a.

### 2.13.B LIST AND DESCRIPTION OF HOW EACH JOINT DEGREE PROGRAM DIFFERS FROM THE STANDARD DEGREE PROGRAM

**TOTAL CREDITS:** All dual degree students complete 42 credits to be applied to the MPH degree. Efficiency is achieved in the dual degree programs through applying some credits (usually 9 credits, but as low as 7 and up to 14 credits) from the other degree to the MPH. In most cases, credits from the other degree are only applied to MPH elective credits. For the DVM/MPH there is a deviation, where for three concentrations (Animals, People and the Environment, Epidemiology, and Global Health and Health Disparities) selected courses may be applied to concentration requirements as well as electives. For the DNP/MPH, in addition to elective credits, the practicum and capstone credits are drawn from the DNP program, with incorporation of MPH competencies into these activities. For the MSW dual degrees, there is also sharing of practicum and capstone credits. See further details below.

**MPH CORE COURSES:** For all dual degree programs, students complete all core MPH courses in the same manner as non-dual degree students, thereby assuring that core MPH competencies are met.

**MPH CONCENTRATION:** All dual degree students complete a concentration, selecting from the concentrations available to all other MPH students. Completing a dual degree often presents challenges in course scheduling and sequencing, making it difficult for a dual degree student to complete all required courses for a particular concentration. This is especially true because several of the collaborating programs (MPA, MURP, MSW) reside on campuses that are some distance from the CU Anschutz Medical Campus where the CU Anschutz MPH resides. Therefore, dual degree students are also allowed to create a custom concentration. In some cases, a custom concentration is close but not identical to an existing concentration. For example, the Epidemiology concentration requires a sequence of concentration courses that cannot be

completed in a single academic year unless exceptions are made regarding the desired sequencing and prerequisites. Thus, a dual degree student could create a custom concentration that approximates the Epidemiology concentration but perhaps substitutes one or two concentration courses with other Epidemiology courses. To be approved for a custom concentration, the student must create a concentration plan when embarking on the program that identifies specific concentration competencies (usually selected from existing concentration competencies) that they will address, mapped to the courses they intend to take to address those competencies. The custom plan must be approved by the Associate Dean for Academic Affairs. The custom concentration approval documents are provided in Resource File 2.13.b(1). The only exceptions to completing ColoradoSPH courses for the concentration are for the DVM/MPH. For the Animals, People and the Environment, Epidemiology, and Global Health and Health Disparities concentrations at CSU, DVM/MPH students may apply DVM courses, specified below, to the concentration requirements.

**PRACTICUM:** All dual degree students complete a practicum experience to meet the competencies expected for the MPH. For the MD/MPH, MURP/MPH, DVM/MPH, and MPA/MPH, students follow the same procedures as all other MPH students. For the DNP/MPH, the 2-credit practicum experience is fulfilled by a 4-credit leadership residency required by the DNP degree (NUDO 8010). The dual degree requires that the placement for the leadership residency be in a setting equivalent to those accepted for other MPH students. For the planned MSW/MPH dual degree at the University of Denver, students will complete a practicum experience through the MPH program that addresses both MPH and MSW practicum requirements. For the MSW/MPH dual degree at CSU, the practicum requirement will be satisfied through the concentration field placement in the MSW (SOWK 688 – 7 credits). When practicum experiences are shared between two degrees, field placements incorporate competencies of both the other degree and the MPH, and students are required to complete the online aspects of the MPH practicum course to assure reflection and documentation of MPH competencies. (Note that at the time of this report, no dual DNP/MPH students have completed the practicum portion of the degree.)

**CAPSTONE:** All dual degree students must complete a project that fulfills the objectives of the MPH capstone. For several of the dual degrees, students complete the MPH capstone experience, the same as for all other MPH students. This applies to the MPA/MPH, MURP/MPH, and the DVM/MPH. For the MD/MPH, students may utilize their Mentored Scientific Activity (MSA), which is a required element of the medical degree, to fulfill the MPH capstone, if that project addresses public health competencies. MD/MPH students who utilize their MSA project for the capstone present their projects at the Public Health Forum, even if they do not enroll in the MPH capstone course. For the DNP/MPH, the MPH Capstone requirement is fulfilled by a major project that all DNP students complete, the DNP Capstone project (NUDO 8018, 4 credits). This project is similar to a practice-based dissertation project that involves an evaluation of a clinic-based quality improvement effort. DNP/MPH students will present their projects at the Public Health Forum with other MPH students. For the planned MSW/MPH at the University of Denver, the MSW research project (SOWK 4900/4901) will meet the requirements of the MPH capstone by incorporating public health competencies. For the planned MSW/MPH at CSU, the MSW research project in program evaluation (SOWK 602B) will fulfill the capstone requirement. For both MSW programs, students will present their projects at the Public Health Forum.

**ELECTIVES:** It is through electives that dual degree students achieve efficiency and synergy between their two programs. Most MPH concentration plans have room for 8-9 credits of elective courses that may be

chosen from all courses in the ColoradoSPH course book. Dual degree students are allowed to utilize courses from their other degree to fulfill these credit hours. A list of acceptable courses that relate to public health and can be applied to the MPH degree is approved for each dual degree program. The initial selection of elective courses to be shared in dual degree programs is developed by the associate dean for academic affairs, who oversees and advises for all dual degree programs, and then ratified by the Education and Curriculum Committee. The lists of acceptable courses to be applied to elective credits are presented below in the descriptions for each dual degree program. Course syllabi for accepted courses are in Resource File 2.13.b(2).

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### **MD/MPH DUAL DEGREE**

The MD-MPH degree operates in cooperation with the School of Medicine at the CU Anschutz campus. For the MD-MPH dual degree, medical students take a leave of absence for one year between their third and fourth years of medical school to complete the MPH in three semesters (summer, fall and spring). Medical school credits may be used to replace up to 9 MPH credits. These count towards electives. Medical school credits are calculated differently than MPH credits, with each medical school credit being equivalent to 0.54 MPH credits. Medical school credits are thus counted towards the MPH with this conversion, so a MD/MPH student would need 17 eligible medical school credits in order to fulfill 9 MPH credits. The following medical school courses have been approved.

IPED 5002 Interprofessional Education 1 (1 credit)

IPED 6001 Interprofessional Education 2 (1 credit)

IDPT 6004 Infectious Disease (4.5 credits)

FMMD 6624 Stout Street Clinic (1 credit)

IDPT 6639 Health Care in Public Policy (1 credit)

IDPT 6642 Intro to Women's Health (1 credit)

IDPT 6669 Global Health Seminar (1 credit)

PSYM 6632 Denver CARES Elective (1 credit)

IDPT 7061 Rural and Community Care (8 credits)

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### **DVM/MPH DUAL DEGREE**

The DVM/MPH program operates in conjunction with the College of Veterinary Medicine and Biomedical Sciences at CSU. DVM/MPH students spend their first 12 months in the MPH program, and then begin the first year of the DVM program. Students are allowed to apply up to 12 credits of approved DVM coursework towards the MPH degree. Courses approved to apply to the MPH include:

VM 637 Bacteriology and Mycology (3 credits)

VM 638 Veterinary Parasitology (2 credits)

VM 707 Emerging Infectious Disease (1 credit)

VM 714 Veterinary Preventive Medicine (4 credits)

VSCS 648 Food Animal Production and Food Safety (2 credits)

Students in the Animals, People and the Environment (APE) concentration may transfer in: VSCS 648 to meet their food safety course requirement; VM 707 to count toward the infections/zoonotic disease track; and VM 714 and VM 637 to count toward APE elective requirements.

Students in the Epidemiology (EPI) concentration may transfer in: VM 707 and VM 714 to count toward the epidemiology elective requirements.

Students in Global Health and Health Disparities (GHHD) may transfer in: VSCS 648, VM 714 and VM 707 to count toward GHHD electives.

Should a DVM/MPH student choose a MPH concentration other than the three described above, the DVM courses would be reviewed for relevancy to the concentration and a plan would be determined for how the DVM credits could apply to concentration requirements.

All other approved DVM courses, within the 12-credit transfer limit, can be applied to the MPH degree general electives.

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### **MURP/MPH DUAL DEGREE**

The MURP/MPH program is offered in conjunction with the College of Architecture and Planning at the CU Denver campus. Students in the MURP/MPH dual degree program take courses concurrently in the two programs. As stand-alone programs, the MPH is 42 credits and the MURP is 54 credits. Both degrees are awarded for a total of 69 credits between the two programs. The MPH program accepts up to 9 credits from MURP course work to count towards elective credits, and the MURP degree accepts 18 credits from the MPH towards elective credits. Approved courses that can be counted towards the MPH include:

URPL 5040 Urban Sustainability (3 credits)

URPL 6250 GIS Analysis (3 credits)

URPL 6300 Planning for Healthy Communities (3 credits)

URPL 6405 Urban Housing (3 credits)

URPL 6410 Social Justice in Planning (3 credits)

URPL 6500 Environmental Planning and Management (3 credits)

URPL 6645 Disaster/Climate Change Planning (3 credits)

URPL 6650 Planning in the Developing World (3 credits)

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### **MPA/MPH DUAL DEGREE**

The MPA/MPH program is a collaboration with the School of Public Affairs at the CU Denver campus. Students in the MPA/MPH dual degree program take courses concurrently in the two programs. As stand-alone programs, the MPH is 42 credits and the MPA is 39 credits. Both degrees are awarded for a total of 60 credits between the two programs. The MPH program accepts up to 9 credits from MPA course work to count towards elective credits, and the MPA accepts up to 12 MPH credits as electives. Approved courses that can be counted towards the MPH include:

PAUD 5650 Disaster and Emergency Management Policies (3 credits)

PAUD 5006 Leadership and Professional Ethics (3 credits)  
PAUD 5004 Economics and Public Finance (3 credits)  
PAUD 5002 Organizational Management and Behavior (3 credits)  
PAUD 5310 Policy Formulation and Implementation (3 credits)

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### **DNP/MPH DUAL DEGREE**

The DNP/MPH operates through a collaboration with the College of Nursing at the CU Anschutz campus. Students in the DNP/MPH dual degree program take courses concurrently in the two programs. As stand-alone programs, the MPH is 42 credits and the DNP is 43 credits. Both degrees are awarded for a total of 61 credits between the two programs. The MPH program accepts up to 10 credits from DNP course work to count towards elective credits, as well as the 2-credit Clinical Evaluation Proposal (NUDO 7018) to fulfill the practicum and the 4-credit DNP Capstone project (NUDO 8018) to replace the 2-credit MPH capstone course. The DNP accepts up to 14 MPH credits towards electives. Approved courses that are counted towards the MPH electives include:

NUDO 6054 Multiple Chronic Conditions: Inter-professional Public Health Strategies (4 credits)  
NUDO 6055 Applied Evidence Based Practice (3 credits)  
NUDO 7018 Clinical Evaluation Proposal (2 credits)  
NURS 6286 Foundations of Health Care Informatics (3 credits)

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### **MSW/MPH DUAL DEGREE**

The MSW/MPH dual degree is under development at the time of this report. The ColoradoSPH has approved curriculum plans for MSW/MPH dual degrees with CSU and the University of Denver (DU - a private university).

**MSW/MPH WITH THE UNIVERSITY OF DENVER (DU):** DU is on the quarter system. As stand-alone programs, the MPH is 42 semester credits and the MSW is 90 quarter credits. With the MSW/MPH dual program, students will complete 75 quarter credits at DU, and 33 semester credits at ColoradoSPH. The MPH program will accept up to 12 quarter credits (equivalent to 9 semester credits) towards the elective credits that are required for the MPH degree. An additional two semester credits are counted from the MSW program to fulfill the MPH practicum requirement for a total of 11 semester credits from the MSW applied to the MPH. Students in the MSW/MPH dual degree program will typically complete their first year in the MSW program, and then complete four consecutive semesters (summer, fall, spring and summer) in the MPH program, before returning to complete the MSW. Approved courses that are counted towards the MPH include:

SOWK 4006 Human Behavior and the Social Environment (3 quarter credits)  
SOWK 4120 Social Policy Analysis, Advocacy and Practice (3 quarter credits)  
SOWK 4132 Power, Privilege and Oppression (3 quarter credits)  
SOWK 4020 Integrated SW Practice for Social Justice (3 quarter credits)

**MSW/MPH WITH CSU:** The stand-alone MSW requires 60 credit hours for the regular 2-year program and 40 credits for the accelerated 1-year program, while the stand-alone MPH is 42 credits. Students may earn both degrees in a total of 84 credits or 66 credits for the regular or accelerated MSW, respectively. For the regular MSW/MPH at the CSU campus, students will enroll for their first two semesters in the MSW program at CSU, taking eight MSW courses and two MPH courses. In the second fall, spring, and summer, students will be enrolled in the MPH program and take 10 MPH courses. The final fall and spring will be devoted to eight MSW courses, which will include a field placement (fulfilling the MPH practicum) and a research in program evaluation course (fulfilling the MPH capstone requirement). A total of seven MPH credits will be replaced with MSW credits: the 2-credit practicum, the 2-credit capstone, and 4 credits of electives. The following MSW courses will be taken to fulfill the 4 elective credits.

SOWK 520 – Social Welfare Policy (3 credits) or SOWK 633 – Advanced Social Welfare Policy Analysis (2 credits)

SOWK 572 – Large Client System: Theory and Practice (3 credits)

### **2.13.C ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met.

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#### **STRENGTHS**

All dual degree students complete all required MPH course work, which addresses all of the competencies associated with the stand alone MPH. For all but the DVM/MPH dual degree, only elective coursework is replaced, resulting in up to 10 credits applied from the associated degree to the MPH. For the DVM/MPH there are instances where DVM courses can be used towards concentration requirements, resulting in up to 12 credits applied from the DVM degree to the MPH. A list of approved courses exists for all dual degrees, and courses on those lists have been verified to have public health relevancy. The dual degrees are a very powerful mechanism for producing cross-trained professionals who can address real-world problems from a broad perspective.

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#### **WEAKNESSES**

Because our dual degrees were developed at different times over the past seven years, there are some inconsistencies in procedures and policies. For example, in only the DVM/MPH can students be awarded one of the degrees (the MPH) before completing the other degree (DVM). For all other dual degrees, students must complete both degrees before either is awarded. The difference between the quarter system and the semester system, as well as the complexities of two financial aid systems at two different universities is likely to create challenges with the MSW/MPH at the University of Denver, which has not been implemented yet. Enrollment and tuition-sharing with students taking courses in two schools within the same university has been challenging, and we continue to work on improving these systems.

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## PLANS

Efforts are underway to establish mechanisms for faculty of dual degree programs to connect with each other across programs and with dual degree students in a seminar or social setting, with the goal to enhance the connections between areas represented in the dual degrees. We feel this would benefit both faculty and students, and in addition to strengthening the student experience, may lead to joint research initiatives.





## 2.14 DISTANCE EDUCATION OR EXECUTIVE DEGREE PROGRAMS

### 2.14.A IDENTIFICATION OF ALL DEGREE PROGRAMS THAT ARE OFFERED IN A FORMAT OTHER THAN REGULAR, ON-SITE COURSE SESSIONS SPREAD OVER A STANDARD TERM

The MPH program in Leadership and Public Health Practice, identified in Table 2.1.a, is delivered primarily online.

### 2.14.B DESCRIPTION OF THE DISTANCE EDUCATION OR EXECUTIVE DEGREE PROGRAMS

The MPH concentration in Leadership and Public Health Practice (LPH) was designed to maximize access to education in public health for working professionals, especially those working in public health. In Colorado, the majority of health department workers around the state do not have an advanced degree in public health. ColoradoSPH is the only school of public health in the Rocky Mountain region and Region VIII of the US Department of Health and Human Services (a 6-state region of CO, UT, WY, MT, ND, and SD). The curriculum is designed to develop individuals who are well-rounded and can serve a number of functions in a small local health department. The emphasis is on leadership, management, and programmatic components such as outbreak investigation, disaster preparedness, and program evaluation.

Students in the LPH concentration are able to take 38 of their 42 required credits in an online format. Only the Leadership for Public Health Practice courses (CBHS 6640 & 6641) require in-person attendance. These two courses (4 credits total) are taught over a 2-semester sequence in a format that requires a two to three day concentrated in-person experience followed by online exercises each semester. One objective of the course is to develop a cohort experience through the in-person sessions. The format is specifically designed for working professionals.

The online courses for the LPH concentration are part of the regularly offered MPH curriculum, that is, these courses were not designed specifically for the LPH program and are available to other MPH students. All MPH core courses in ColoradoSPH are offered at least once each year in an online format. LPH students take these online courses. The courses are designed to be equivalent to the in-person versions of the courses, with the same learning competencies, similar lectures, assignments, group activities and exams. The practicum for the MPH is already designed so that students complete field work while participating in course activities through online mechanisms. An online section has already been integrated into the capstone course to accommodate students who have difficulty attending the sessions, and this will be used for the LPH concentration. The LPH concentration required courses were selected to develop competencies required to be successful leaders in small local health departments and include:

CBHS 6640 & HSMP 6640	Leadership for Public Health Practice – 4 credits
EPID 6640	Investigation of Disease Outbreaks – 2 credits
EHOH 6622	PH Emergency Preparedness & Community Resilience – 3 credits
CBHS 6612	Methods in Research and Evaluation - 3 credits
HSMP 6634	Management, Budgeting and PH Administration – 3 credits

LPH students can select electives from among the online courses available in ColoradoSPH.

The LPH program has a concentration director (Dr. Elizabeth Greenwell) from among the regular ColoradoSPH faculty to oversee delivery of the program. The program is also guided by an advisory board that includes online learning experts, leadership experts, and representatives from local public health departments. Administrative staff are the same as those who support other MPH concentrations. Although the LPH is cross-disciplinary, incorporating concentration courses from across the School, including Epidemiology, Health Systems, Management and Policy, Community and Behavioral Health, and Environmental and Occupational Health, it is currently housed in the Community and Behavioral Health department, the home department of the concentration director. It is planned that the program will rotate departments since it is interdisciplinary. Applications and admissions to the program use the same structure and procedures as the other MPH concentrations. LPH students have access to student services by telephone or email. Employment services are available through video conferencing with the Manager of Career and Employer Relations in the Office of Student Affairs. LPH students attend in-person student orientation in conjunction with their first in-person two to three day leadership training session.

Quality of the LPH is assessed in the same way as all other educational programs, with course evaluations, competency assessments, student surveys, etc. One of our outcome measures (see Section 1.2) is a comparison of student evaluations between online vs. in-person versions of the core courses. To date, student evaluations of online courses have not been significantly different than student evaluations of in-person courses.

#### **2.14.C DESCRIPTION OF THE PROCESSES THAT THE SCHOOL USES TO VERIFY THAT THE STUDENT WHO REGISTERS IN A DISTANCE EDUCATION COURSE OR DEGREE IS THE SAME STUDENT WHO PARTICIPATES IN AND COMPLETES THE COURSE OR DEGREE AND RECEIVES THE ACADEMIC CREDIT**

All students matriculating into an educational program at ColoradoSPH receive a unique login and password to access the online educational system (Canvas), as well as email. This protects against another student logging into a student's course without permission. Academic honesty is stressed by requiring students to complete and pass an online course in academic honesty/plagiarism, and by requiring students to electronically acknowledge a statement that their work is their own whenever taking an online exam or turning in an assignment. These are best practices endorsed by CU Online.

#### **2.14.D ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met.

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## **STRENGTHS**

The LPH program is structured similarly to all other MPH concentrations, except that the majority of course credits are earned in online courses. These are the same online courses that are offered to other MPH students. Adequate administrative structures and evaluation procedures are in place. The program maximizes access to education for students who are working professionals and/or in remote locations.

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## **WEAKNESSES**

The program is in its first year and started with only six students. It would not be possible to maintain the program with such a small number of students if the courses were not shared with students in other concentrations. Only the 4-semester leadership course is restricted to students in the LPH program. The two to three day in-person components of the leadership course may be discouraging some students from enrolling in the program who would have difficulty traveling to the campus. However, we are finding that some students who initially enrolled in an in-person concentration are switching to the LPH program to relieve constraints that they have on their time (e.g., work and travel).

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## **PLANS**

We are increasing our marketing efforts for this program.



Creation, Application, and  
Advancement of Knowledge

3.0



The University of Northern Colorado, located in Greeley, Colorado, offers rich, diverse opportunities in a personal, welcoming, and caring setting.



## 3.0 CREATION, APPLICATION, AND ADVANCEMENT OF KNOWLEDGE

### 3.1 RESEARCH

ColoradoSPH pursues an active research program, consistent with its mission, through which our faculty and students contribute to the knowledge base of the public health disciplines, including research directed at improving the practice of public health. As highlighted in Section 1.1. Mission, research constitutes our School's second strategic priority, with the following goals and action steps. Brief indicators of current status are included in parentheses.

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#### **GOAL 1: PROMOTE ACCELERATED DISCOVERY AND APPLICATION OF KNOWLEDGE BY LEVERAGING CURRENT STRENGTHS AND INCREASING SUPPORT FOR IMPORTANT INTERDISCIPLINARY AREAS.**

- Establish a process to identify and prioritize new strategic areas and evaluate the need for new centers and programs (in planning).
- Develop and support collaborative networks to foster interdisciplinary research across all ColoradoSPH departments and partner institutions/schools (ongoing).
- Strategically recruit faculty in programmatic and methodological areas of public health relevance (ongoing).
- Increase expectations for and support (through pilot grants) of faculty participation in collaborative research activities (currently promoting university opportunities, planning School opportunities).
- Evaluate the impact and effectiveness of our population health research enterprise (in planning).

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#### **GOAL 2: INCREASE RESEARCH EFFICIENCY AND PRODUCTIVITY BY LEVERAGING UNIVERSITY RESOURCES AND IMPROVING SCHOOL-WIDE SERVICES FOR ADMINISTRATION AND SUPPORT OF RESEARCH, INCLUDING COLLABORATIVE GRANTS ACROSS PARTNER INSTITUTIONS.**

- Recruit an associate dean for research (done)
- Significantly improve research infrastructure, including clerical, pre- and post-award, project coordination and human subjects research support (ongoing)
- Establish a school-wide research committee (done)
- Enhance the administrative feasibility of inter-institution collaboration (in planning)



- Develop, maintain, and further enhance an integrated research computing infrastructure to support research endeavors (transitioned to University of Colorado responsibility as part of the implementation of the university strategic plan for research computing support)

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### **GOAL 3: INCREASE RESEARCH OPPORTUNITIES AND MENTORING FOR JUNIOR FACULTY.**

- Develop and implement a school-wide grant peer-review program for junior faculty (in planning for the School, currently promoting university-wide opportunities)
- Develop and implement a school-wide pilot program for mentored research (in planning for the School, currently promoting university-wide opportunities)
- Implement school-wide and department-specific “Research in Progress” seminar series (department seminars in place)

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### **GOAL 4: INCREASE STUDENT PARTICIPATION IN RESEARCH AND CREATIVE ACTIVITIES.**

- Increase expectations for and support of student participation in scholarly activities (ongoing)
- Connect students to research projects and other creative activities, including practice-based research and public health projects (ongoing)
- Obtain or substantively participate in pre- and post-doctoral training grants (ongoing)
- Offer School-wide and department-specific seminars (e.g., research discussion groups, scientific writing, etc.) (department seminars in place)
- Implement a summer undergraduate research program for under-represented students (in planning)

This priority and its constituent goals emerged as part of a comprehensive five-year strategic planning process undertaken during 2013, which is continually reviewed and revised as needed.

This section begins by highlighting the research approach and emphases that have informed the School’s agenda since its inception, representing our historical strengths, and indicates future areas of inquiry that reflect the faculty’s growing scientific expertise related to public health priorities. It then turns to the organizational structures that foster, focus, carry out, and translate the intellectual aspects of this enterprise. Specific examples of ColoradoSPH research of note are highlighted. The discussion then shifts to the assets, resources, and pre- and post-award research administrative support provided in accordance with School and university policies and procedures. We next describe the faculty’s productivity in terms of sponsored research and scholarly publications, referencing efforts that are especially focused on public/academic partnerships. An overview and metrics of student engagement in the School’s research enterprise then follows. This summary of ColoradoSPH research closes by considering the strengths and weaknesses of our current research, and anticipates areas for particular attention as we grow.

## **3.1.A DESCRIPTION OF THE SCHOOL’S RESEARCH ACTIVITIES, INCLUDING POLICIES, PROCEDURES AND PRACTICES THAT SUPPORT RESEARCH AND SCHOLARLY ACTIVITIES**

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### **3.1.A.1 RESEARCH APPROACH AND EMPHASES**

ColoradoSPH fosters research involving a full complement of the health science disciplines: public health, medicine, nursing, dentistry, health services management and policy, and pharmacy, housed at the University of Colorado (CU Anschutz) Anschutz Medical Campus; veterinary medicine, exercise science, environmental



sciences, communication, and nutrition, located at Colorado State University (CSU); and community health, gerontology, and school health promotion at the University of Northern Colorado (UNC). The School promotes research aimed at quantitative and qualitative research methods, population-level disease prevention, health promotion, health policy, and health outcomes. Strategies for translating research into practice include creating academic research units and offering fellowships, internships, and participatory programs that provide services and capacity building to communities, and establishing consulting and research partnerships with governmental and non-governmental organizations. Most research projects are collaborations between faculty across different departments, schools, and universities, and use an interdisciplinary approach to studying public health questions.

Over the first seven years, the School's research agenda has capitalized on areas in which our collective expertise held the greatest promise for improving population health. These areas include:

- American Indian and Alaska Native Health
- Cancer prevention and control
- Diabetes and obesity prevention
- Global health
- Maternal and child health
- Worker health and wellness

As we later illustrate, our portfolio of sponsored research has continued in these areas of strength, facilitated by the addition of new programs and centers funded by a range of private, state, and federal sources. In addition, new lines of inquiry are emerging, driven by the expressed needs of our community partners and partner institutions. For example, Colorado ranks high in deaths by suicide, and more of our citizens die by suicide than in motor vehicle crashes. Consequently, local advocates and coalitions press for greater attention to the public health risks that contribute to this trend. Mental illness prevention and mental health promotion, then, are acquiring a greater presence in both our research agenda and in our public health program development. Likewise, given Colorado's longstanding participation in the oil, gas, and agricultural industries, the contribution of noise, chemical, and particulate exposure to incident cancer, cardiovascular disease, respiratory disease, infectious disease, and musculoskeletal disease has engendered substantial public concern. Our participation in environmental health research, as a result, has expanded substantially. Our work in community and global health promotion has engendered an appreciation of the potential value of mobile and digital health technology, leading us to establish our m-Health Impact Laboratory two years ago as a resource to support public health research and program evaluation. We expect that these and other still nascent research emphases will become better developed in the years ahead.

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### **3.1.A.2 RESEARCH PROGRAMS AND CENTERS**

The vast majority of the School's research is initiated through and supported by twelve programs and centers, a number of which have been added since initial accreditation. Importantly, these programs and centers often cross-cut the tripartite campus of the ColoradoSPH, which draws upon faculty at the University of Colorado Denver (CU Denver) based at both CU Anschutz and its sister campus in Denver; faculty at CSU in Fort Collins; and faculty at UNC in Greeley. In our prior self-study, we acknowledged the challenges of melding academic disciplines and school cultures that are different into what we envisioned for a collaborative ColoradoSPH. For

example, research at CU Anschutz was more biomedically oriented than that at CSU or UNC, where greater emphasis is placed on teaching and service. Nonetheless, over the past five years, as summarized in this section, the faculty, students, programs, and centers of ColoradoSPH have become much more engaged in research, service, and workforce development activities that have contributed to improved public health systems and outcomes.

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## CENTERS FOR AMERICAN INDIAN AND ALASKA NATIVE HEALTH

The Centers for American Indian and Alaska Native Health (CAIANH) is a unit comprised of nine national centers and is the nation's largest, most diverse program in American Indian and Alaska Native health, spanning research, education, program development, and technical assistance that address a broad array of physical, mental, and substance abuse health problems common in American Indian and Alaska Native populations. Though different in emphasis, each center shares the common mission of promoting the health and well-being of American Indians and Alaska Natives of all ages, within a bio-psychosocial framework that recognizes the unique cultural contexts of those special populations. Directed by S. Manson, the CAIANH houses 24 faculty and 64 support staff, representing psychiatry, psychology, anthropology, sociology, social work, psychiatric epidemiology, biostatistics, health economics, and public health. Fully 41% of CAIANH faculty and staff are American Indian. The CAIANH research programs exceed \$18 million per year in direct costs and partner with over 225 tribal communities across the country. Their goal is to identify factors influencing health disparities and to develop targeted interventions that can reduce these inequalities.

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## CENTER FOR GLOBAL HEALTH

The Center for Global Health's (CGH) mission is to improve health and health care in communities around the world through interdisciplinary collaboration with partners in research, education, and health services. Led by S. Berman, the CGH is administratively located in ColoradoSPH, but is a university-wide center that integrates the various health professions, schools of CU Anschutz and the health-related programs of the CU Denver campus, including the Business School and various departments of the College of Liberal Arts and Sciences. The CGH develops programs and activities in global health service, research, and education for a variety of faculty, health professions students, and the community at large. It promotes new global health research and integrates existing international research into its portfolio of programs. The World Health Organization Collaborating Center for Promoting Family and Child Health is one of only two maternal and child health collaborating centers in the Americas and provides the infrastructure for our global family and child health activities.

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## ROCKY MOUNTAIN PREVENTION RESEARCH CENTER

The Rocky Mountain Prevention Research Center (RMPRC) was initially funded as one of a national network of prevention research centers sponsored by the Centers for Disease Control and Prevention (CDC). CDC funding ends in 2015, but the RMPRC will continue with funding from several other sources, including major grants from the Colorado Health Foundation. Directed by E. Belansky, the RMPRC conducts research and training in chronic disease prevention, especially healthy eating and physical activity, in family, school, and community settings. Its mission is to advance healthy lifestyles and prevent chronic disease among residents and communities in the Rocky Mountain region by conducting, disseminating, and serving as a resource for

community-based research and policy. Its major geographic focus is rural Colorado, with strong partnerships in the San Luis Valley of Southern Colorado and rural schools throughout the state.

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## CENTER FOR HEALTH, WORK AND ENVIRONMENT

The Center for Health, Work and Environment (CHWE) addresses environmental and occupational safety, health and well-being through a portfolio of research, public health practice, continuing education and training. The Center provides research infrastructure support for all core faculty members in the Department of Environmental and Occupational Health as well as for adjunct faculty members. The director, L. Newman, is based on the CU Anschutz campus. Major programs and centers housed within CHWE include Health Links, which brings health promotion and health protection programs to small businesses; the National Supplemental Screening Program, which provides medical examinations and conducts research on medical surveillance for former workers from U.S. Department of Energy sites nationwide; the Health Risk Management Program, which examines the impact of workplace wellness programs on the health risks of employees and their risks of injury on the job; and the Chronic Pain Management/Opioid Epidemic Professional Education Program, which retrain practitioners in Colorado on evidence-based guidelines for the management of patients with chronic, non-cancer pain, and other types of pain. A cornerstone of CHWE is the Mountain and Plains Education and Research Center.

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## MOUNTAIN AND PLAINS EDUCATION AND RESEARCH CENTER

The Mountain and Plains Education and Research Center (MAP ERC) is one of 18 Education and Research Centers funded by the Centers for Disease Control/National Institute for Occupational Safety & Health (CDC/NIOSH). Spanning the borders from Canada to Mexico, the MAP ERC helps meet the occupational and environmental health needs of Colorado, New Mexico, Arizona, Montana, Wyoming, North Dakota and South Dakota through education, research, and community partnerships. The director, L. Newman, is based on the CU Anschutz campus and the Deputy Director, S. Reynolds, is located on the CSU campus. MAP ERC coordinates five training programs: Occupational and Environmental Medicine Residency Program (CU Anschutz), Industrial Hygiene (CSU), Occupational Ergonomics (CSU), Occupational Health Psychology (CSU), and Occupational Health Physics (CSU). MAP ERC provides education in occupational and environmental health and safety, supports research that addresses emerging regional needs and the NIOSH National Occupational Research Objectives, and engages communities in advancing occupational and environmental health and safety in the region.

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## LATINO/A RESEARCH AND POLICY CENTER

The Latino/a Research and Policy Center's (LRPC) mission is to improve the quality of life for Latinos/as in Colorado through research and public forums concerning health and health disparities, education, and public policy. Led by E. Borrayo, the LRPC has working relationships through funded grants and initiatives with approximately 45 community-based organizations and local health agencies statewide. It currently focuses on student pipeline development for the health professions and consultation for culturally appropriate research and training of researchers. In October 2013, the LRPC hosted a one-day conference that focused on Latino/a health disparities and the Affordable Care Act, which has informed a nascent research agenda that considers the social determinants of cancer, cardiovascular disease, and diabetes among Latino/a residents of Colorado.

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## HIGH PLAINS INTERMOUNTAIN CENTER FOR AGRICULTURAL HEALTH AND SAFETY

The High Plains Intermountain Center for Agricultural Health and Safety (HICAHS), located at CSU, is dedicated to improving the occupational health, safety, and well-being of the residents of Colorado, the High Plains, and the Rocky Mountain region. Directed by S. Reynolds, the HICAHS has served the agricultural population of Public Health Service Region VIII (Colorado, Utah, Wyoming, Montana, North Dakota, and South Dakota) for more than 10 years. Its overarching goal is to reduce agricultural injury and illness through focused research, education, and intervention. Current lines of inquiry include identifying and preventing mechanical hazards, tractor roll-overs, musculoskeletal stress, respiratory disease, traumatic injury, and farmer suicide.

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## CENTER FOR FOOD SAFETY AND THE PREVENTION OF FOODBORNE DISEASE

The CDC designated Colorado as one of five integrated Food Safety Centers of Excellence to assist it in meeting the requirements of the Food Safety Modernization Act. As a result, the Colorado Department of Public Health and Environment, CSU, and the Food and Drug Administration joined to form the Center for Food Safety and the Prevention of Foodborne Disease (CFSPFD), which is based at CSU within the ColoradoSPH. Directed by E. Scallan (CU Anschutz) and M. Bunning (CSU), the CFSPFD seeks to improve food safety and prevent foodborne disease by fostering collaboration among academia, government, and industry in Colorado and the region. Launched in late 2011, the CFSPFD has initiated a wide array of activities to improve training, research, continuing education, and outreach related to food safety and the prevention of foodborne disease.

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## PROGRAM FOR INJURY PREVENTION, EDUCATION AND RESEARCH

The Program for Injury Prevention, Education and Research (PIPER) is a collaborative initiative between ColoradoSPH, the University of Colorado School of Medicine, and Children's Hospital Colorado. Directed by C. Runyan, PIPER links research, training, and practice to prevent child injury in Colorado, nationally and around the world. PIPER conducts cutting edge research on injury and violence issues, and high-quality injury and violence prevention activities in the community setting. PIPER works to improve national, state, tribal, local, and organizational policy addressing injury and violence issues, and to develop the workforce in public health practice applied to injury and violence prevention.

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## THE COLORADO INJURY CONTROL RESEARCH CENTER

The Colorado Injury Control Research Center (CICRC) is located at Colorado State University. It is dedicated to providing leadership within the Rocky Mountain Region to reduce the occurrence, severity and adverse consequences of injuries and violence by developing and applying evidence-based approaches that bridge research with practice including both policy and programs. The CICRC emphasizes building community-based partnerships, particularly among underserved populations such as Hispanics, Native Americans, and rural residents and their families.

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## LIFECOURSE EPIDEMIOLOGY OF ADIPOSITY AND DIABETES CENTER

The newly established Lifecourse Epidemiology of Adiposity and Diabetes (LEAD) Center, led by D. Dabelea, seeks to understand the complex interplay of developmental exposure(s), genetic and epigenetic processes, and critical developmental periods in life that underlie obesity and diabetes. The Center's vision is that families live healthy lives without adiposity, diabetes or their sequelae. Its mission is to conduct research into the lifecourse health consequences of early and later life exposures that accelerate adiposity and diabetes and to prevent their consequences. The center investigates how the human genome is continually reprogrammed by epigenetic processes in response to a variety of environmental stressors such as the foods we eat or our exposure to environmental pollutants. The LEAD Center is a collaboration between ColoradoSPH, the CU School of Medicine's Department of Pediatrics, Children's Hospital Colorado, and the Anschutz Health and Wellness Center.

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## COLORADO BIOSTATISTICS CONSORTIUM

The Colorado Biostatistics Consortium (CBC) resides in the Department of Biostatistics and Informatics at ColoradoSPH, on the CU Anschutz campus. Directed by N. Carlson, its goal is to facilitate the department's and School's collaborative mission. The CBC strives to maintain adequate capacity and expertise for biostatistics consultation and to seed collaboration with researchers at CU Anschutz, its affiliates, and surrounding community. The center's mission includes fostering the understanding and implementation of biostatistical principles, providing reliable biostatistical expertise from research design to dissemination, training the next generation of collaborative biostatisticians through practice-based learning, and advancing research through validation and development of new statistical approaches. The CBC also supports the Biostatistics, Epidemiology, & Research Design (BERD) program of the Colorado Clinical & Translational Sciences Institute (CCTSI), the academic home to help transform the clinical and translational research and training efforts at CU, CSU and affiliated institutions. The CCTSI was created in 2008 with funding from the Clinical and Translational Science Award (CTSA) initiative of the National Institutes of Health (NIH).

In summary, our research programs and centers include faculty from many different schools and departments. Each center draws upon the diverse skills of ColoradoSPH faculty to serve the broad mission of improving the health of communities. The centers also strongly engage the communities they serve to bring a broader array of knowledge and skills to their programs.

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### 3.1.A.3 BREADTH OF RESEARCH

Faculty, staff, and students are engaged in collaborative, interdisciplinary research spanning basic molecular mechanisms; epidemiology; social, behavioral, environmental, and policy determinants of health and health disparities; public health and health care services and systems research; and the impact of policy on population health. The areas of research include disease etiology and prevention; genetic epidemiology; maternal and child health; nutrition; injury control; agricultural safety; life course epidemiology; environmental and occupational health; biostatistics and informatics methods; clinical trials methods, community-based participatory research; health policy; public health systems and services research; and health services research. Consistent with our strategic plan and growth of our research portfolio over the last 5 years, we highlight below in Table 3.1.a.3 efforts in several broad areas.

TABLE 3.1.A.3 RESEARCH HIGHLIGHTS

<b>American Indian and Alaska Native Health</b>
Center for Native Oral Health Research (J. Albino)
Tribal Turning Point: Pilot Study for Prevention of T2D in American Indian Youth (D. Dabelea)
Teen Pregnancy Prevention Research and Dissemination Program and Personal Responsibility (C. Kaufman)
Center for American Indian and Alaska Native Health Disparities (S. Manson)
Native Elder Research Center (S. Manson)
Early Head Start University Partnership Grants: Buffering Children from Toxic Stress (M. Sarche)
Culturally Grounded Early Substance Use Prevention for American Indian Families (N. Whitesell)
<b>Cancer Prevention and Control</b>
The Role of Toll-like Receptor 4 in Mouse Pulmonary Neplasi (A. Bauer)
Reducing Breast Cancer Recurrence with Weight Loss: A Vanguard Trial (T. Byers)
Risk Factors for Nevus Development in Children (L. Crane)
Environmental Influences on Indoor Tanning in Young Adults (L. Crane)
Telephone Counseling: Caregivers for Children with Cancer (K. Garrett)
LIVESTRONG Center of Excellence Network Survivorship Study for Young Adults (B. Risendal)
Barriers to Colorectal Cancer Screening in American Indian Communities (H. Wolf)
<b>Diabetes and Obesity Prevention</b>
Healthy Eaters, Lifelong Movers (E. Belansky)
Culture of Wellness in Preschools (J. Puma)
Developing a Diabetes Numeracy Intervention for American Indians/Alaska Natives (A. Brega)
Epigenetic Markers of In Utero Exposure to Gestational Diabetes (D. Dabelea)
SEARCH for Diabetes in Youth, Colorado Center (D. Dabelea)
Diabetes Prevention Program Outcomes Study - Phase II (D. Dabelea)
Endocrine Disruptors, Epigenetic Programming and Neonatal Outcomes (R. Hamman/D. Dabelea/J. Adgate)
Center for American Indian and Alaska Native Diabetes Translational Research (S. Manson, CAIANH)
Nutritional Etiology of Pre-Diabetic Autoimmunity (J. Norris)
<b>Global Health</b>
Proposed TOR for the Development of the Landscape Analysis and Proposal of Online Education Course on Vaccine Safety (E. Asturias)
Randomized Controlled Trial to Assess the Impact of Nutritional Produce PTM202 (J. Gaensbauer)
<b>Maternal and Child Health</b>
Using Dental Health Videos During Well Child Care Visits to Change Caregiver Oral Health Behaviors (J. Albino)
Sexuality, Health & Rights Among U.S. Youth: Transforming Public Policy & Public Understanding (E. Borrayo)
Surveillance and Epidemiologic Research of Duchenne and Becker Muscular Dystrophy (C. DiGuseppi)
Rocky Mountain Prevention Research Center (E. Belansky)

Maternal Exposure to Natural Gas Development Emissions & Congenital Heart Defects (L. McKenzie)
Child Maltreatment and Partner Violence: Bridging the Health/Social Science Gap (C. Runyan)
NewSTEPS: Newborn Screening Technical Assistance and Evaluation Program (M. Sontag)
<b>Worker Health and Wellness</b>
Design, Evaluation & Validation of a Next-generation Inhalable Aerosol Sampler (L. Newman)
Enhancing Worksite Safety Climate through OSHA 30 Leadership Training (N. Schwatka)
Design and Evaluation of Interventions to Improve Dairy Worker Respiratory Health (S. Reynolds)
<b>Biostatistical</b>
Improved Methods for Elucidating Hormonal Mechanisms in Mental Health Studies (N. Carlson)
Bayesian Methods for Non-ignorable Dropout in HIV Outcomes & Drug Abuse Research (S. Delson-Mawhinney)
Statistical Methods for Cancer Biomarkers (D. Ghosh)
Multilevel and Longitudinal Study Sample Size Tools for Behavioral Scientists (D. Glueck)
<b>Mental Illness Prevention and Mental Health Promotion</b>
Reducing Youth Access to Firearms through the Health Care Setting (E. Sigel; C. Runyan)
Means Restriction for Discharge of Suicidal Patients in Emergency Care (C. Runyan)
Metabolic Screening: Prioritizing Implementation Strategies for Mental Health (E. Morrato)
<b>Public Health Systems and Services Research</b>
Implications of Switching Costs for Medicare Premium Support (A. Atherly)
Evaluating Coordinated Care Organizations: An Econometric Study of Cost & Quality (R. Lindrooth)
Policy, Environmental and Systems Improvements for Preventing Diabetes & CVD among Urban American Indians (T. Noe)

Our faculty members also serve in leadership positions and as investigators in several institutes, centers, and programs administered through other schools. Here we note a few of those that have substantial ColoradoSPH faculty involvement:

At the **University of Colorado Cancer Center (UCCC)**, Professor T. Byers recently stepped down from the position of associate director of prevention and control, and we have recruited C. Bradley, a senior health services researcher from Virginia Commonwealth University, to join us as professor of health systems, management, and policy and associate director of prevention and control in July 2015. Dr. Bradley has special expertise in health services economics and health care for the medically underserved. Other members of the UCCC among our faculty include M. Abdel-Maksoud, A. Barón, E. Bedrick, J. Bondy, T. Byers, L. Crane, D. Fairclough, D. Glueck, A. Levinson, J. Kittelson, B. Risendal and H. Wolfe.

The **Adult and Child Center for Health Outcomes Research and Delivery Science (ACCORDS)**, formed by the merger of two centers formerly known as the Colorado Health Outcomes Program (COHO) and Children's Outcomes Research (COR), is the umbrella structure supporting adult and pediatric outcomes research. It conducts and evaluates interventions to improve population health and the quality of health care. ColoradoSPH faculty who work closely on research projects with this center include S. Bull, L. Crane, M. Daley, D. Fairclough, S. Hambidge, W. Henderson, A. Kempe, and E. Morrato.



The **Barbara Davis Center for Childhood Diabetes** is one of the largest diabetes institutions specializing in type 1 diabetes research and care in the world. Collaborators from ColoradoSPH include D. Dabelea, R. Hamman, and J. Norris.

Lastly, ColoradoSPH faculty includes two members (S. Manson, R. Hamman) designated as University Distinguished Professors, a special honor bestowed upon the most eminent of the University of Colorado's nearly 8,000 faculty system-wide. S. Manson is a member of the National Academy of Medicine. Other ColoradoSPH faculty members figure prominently in the research arms of numerous professional societies, such as the American Cancer Society (T. Byers), the American Heart Association (D. Goff), the American Diabetes Association (R. Hamman, D. Dabelea, J. Norris), Academy Health (A. Atherly, R. Lindrooth), and the American Public Health Association (R. Hamman, S. Manson, J. Marshall), to name only a few.

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### 3.1.A.4 INSTITUTIONAL SUPPORT FOR RESEARCH COLLABORATION

As noted in our previous self-study, CU Denver made two strategic decisions that promised to greatly enhance opportunities for interdisciplinary collaboration, and that have come to fruition. The university began constructing the new Anschutz Medical Campus in Aurora, Colorado in 1999 and administratively consolidated the downtown and health sciences campuses in 2004. These initiatives joined faculty and infrastructure that significantly increased CU Denver's ability to create and sustain interdisciplinary programs and research. The new Anschutz Medical Campus brought together the university's five health professions schools, three major hospitals, and a number of bioscience companies into one of the largest health sciences and health care developments in the country. The proximity of these entities created an environment that is highly conducive to interacting regularly with colleagues from a wide range of disciplines and institutions (academic, health care, and business).

As a result of these investments, CU Denver received a National Institutes of Health-funded Clinical Translational Science Award in 2008 and developed the Colorado Clinical Translational Science Institute (CCTSI). Two ColoradoSPH faculty members are on the CCTSI Executive Council and direct two cores. The Biostatistics, Epidemiology, and Research Design (BERD) core, which collaborates widely with multiple centers and institutions, is directed by N. Carlson. The Pragmatic Trials and Dissemination-Implementation Science core is directed by E. Morrato. School faculty are among the senior leadership of the Community Engagement and Research core (E. Belansky; J. Marshall; S. Manson); the Child and Maternal Health core (D. Dabelea); the Translational Informatics core (J. Bondy, A. Davidson); and the Education, Training and Career Development core (J. Albino; S. Manson). ColoradoSPH faculty members also hold leadership and scientific staff positions on the CCTSI Advisory Committee, Internal Advisory Committee and the Partnership for Academic and Community Translation (PACT) governing council. The 5-year renewal in 2013 expanded the CCTSI's formal collaborations to include CSU. Of special relevance to the School's research mission are the expanded funding opportunities available to our faculty through CCTSI resources. These include:

- The CCTSI Collaborative Pilot Program (CO-Pilot), which provides one-year pilot awards to encourage cross-disciplinary and collaborative research in clinical and translational science. Several categories of awards are available for applicants from fellows through senior investigators.
- The Center for Neuroscience Pilot Program (CNS-Pilot), which offers one-year pilot awards to encourage cross-disciplinary and collaborative investigation in basic and translational neuroscience research.



- The Child & Maternal Health Pilot Program (CMH-Pilot), which makes one-year pilot awards for longitudinal research in children, pregnant women, and mothers to improve child and maternal health and prevent diseases that begin in early life. These awards are generally available to fellows and junior investigators.
- The Community Engagement Pilot Program (CE-Pilot), which encourages community-academic partnerships in clinical and translational research through one-year joint awards to university- and community-based investigators.
- The Novel Clinical & Translational Methods Pilot Program, which invests in the development of novel methods development across the University of Colorado campuses and its affiliate hospitals.
- The Colorado State University Pilot Program (CSU-Pilot), which offers one-year pilot awards to promote innovative research collaborations and interactions for clinical and translational research at CSU that will lead to new funded research.

ColoradoSPH faculty members are eligible for support through each of these mechanisms. With respect to early-stage investigators, the expectation is that the research sponsored by such awards will enhance existing or advance new lines of inquiry, generate preliminary data, and/or establish new collaborations that will increase the likelihood of success in competing for external sponsorship of more mature studies. For mid-career scientists, it is anticipated that pilot awards of this nature will facilitate ancillary work that builds upon their core interests, will promote the development of innovative procedures and methods that require proof of concept, and will enable established investigators to move more fully into the translation of their findings into public health practice, with special emphasis on dissemination and implementation research. These internal funding opportunities are seen as incubating nascent work of promising scientific merit and public health application.

In 2004, CSU developed an innovative research infrastructure to support multidisciplinary collaborations called “superclusters.” These research initiatives integrate experts from many fields with the goal of improving quality of life by taking research innovations to the global marketplace more efficiently and at an accelerated pace. The Infectious Disease Supercluster is a first-of-its-kind enterprise model that involves a multidisciplinary alliance of researchers, economists, and business experts working on innovative research and discovery. This approach has been extended to food safety and the prevention of foodborne disease, agricultural health and safety, and occupational and environmental health, which underpins the three centers noted above with these particular emphases. Coincident with the 2013 renewal of the CCTSI, as noted above, CSU became a full CCTSI partner. Two early-stage research opportunities have emerged in the last two years: the ColoradoSPH-CSU Pilot Research Program and the One Health Initiative. Developed and led by L. Stallones, Director, ColoradoSPH-CSU, the CSU-Pilot offers up to \$100,000 annually in research support to promote new, promising lines of inquiry in public health. Funds are prioritized for award to ColoradoSPH faculty at CSU, but encourage cross-campus collaboration on common themes. The CSU One Health Initiative, launched in 2014, focuses on science at the juncture of human, animal, and environmental health. S. Reynolds and S. Manson sit on the Initiative’s Steering Committee. The One Health pilot research program primarily targets CSU faculty, including members of ColoradoSPH, but also seeks to foster interdisciplinary, cross-campus partnerships. The One Health Initiative awarded its first series of One Health Research and Development grants in 2015.

Additional opportunities to collaborate with other campuses and schools on public health research are encouraged through mechanisms such as:

- The School of Medicine Research Advisory Committee (S. Manson) and the Clinical and Translation Research Advisory Committees (D. Goff). Comprised of representatives from schools across CU Anschutz, these groups advise the Vice Chancellor of Research Affairs on all research infrastructure and translational research issues.
- Funding from the CDC National Prevention Research Centers that supports cross-institutional research networks in healthy aging, physical activity policy, Latino/a health, and cancer
- Infrastructure funding from The Robert Wood Johnson Foundation facilitating research practice partnerships to build the evidence base in public health systems and services research

Pilot research funding is also available through several ColoradoSPH centers. For example, funding from the National Institute of Diabetes and Digestive and Kidney Diseases, administered through the Centers for American Indian and Alaska Native Health, encourages research into dissemination and implementation science. Other examples include pilot grant programs through the Cancer Center and the Center for Nutrition, and from the National Institute of Occupational Safety and Health, managed by the Mountain and Plains Education and Research Center.

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### **3.1.A.5 POLICIES AND PROCEDURES THAT SUPPORT RESEARCH AND SCHOLARLY ACTIVITIES**

The School follows all university policies and procedures related to the responsible conduct of research and does not have additional school-specific policies. The university policies at each partner institution govern human subjects review, HIPAA compliance, environmental and occupational safety, animal welfare, research misconduct, etc. Any instance of potential difficulty, avoidance of policies, or possible scientific misconduct would be handled by the respective chain of command at each institution. Concerns that cross-institutional boundaries would be handled by the associate dean for research of the School (S. Manson). No such problems have arisen to date.

The institutional grants and contracts offices function under federal and state guidelines, which ensure the integrity of the research environment at each partner institution. Faculty on each campus are required to follow the established research policies of their home institution, under the supervision of their respective department chairs and deans of their schools and colleges. CU Anschutz faculty members similarly operate under the CU Denver/Anschutz established research policies, which are monitored by staff of the research support center regarding both pre-award and post-award compliance. Any issues or concerns with adherence to policies and procedures are brought to the faculty member and the associate dean for research (as appropriate) for follow-up and resolution. Close communication with the director of the Office of Grants and Contracts at CU Anschutz is maintained through monthly meetings with ColoradoSPH grants staff. In turn, the Office of Grants and Contracts maintains regular communication with the respective sponsored program officers at the partner institutions about issues pertaining to jointly conducted work. Because a memorandum of agreement has been implemented between the partners, the process of subcontracting between partners has been simplified and no longer requires full subcontract routing and approval, which mitigates the administrative burden for faculty and staff. The School has no additional policies for conducting research under university auspices, as all relevant areas are already covered by these documents. The only policies that

are school-specific include indirect cost-sharing agreements with other schools and centers on a grant-specific basis.

In October 2013, ColoradoSPH funded, for the first time, the position of associate dean for research, filled by S. Manson. He and a specially appointed committee known as the Research Administration Transition Task Group, comprised of senior research leaders, reviewed the School's pre- and post-award administrative infrastructure with an eye toward identifying a fiscally and organizationally feasible model to support the faculty and our research enterprise and to complement the strong research administrative infrastructure already existing in most of our research centers. Guided by additional input from the Faculty Senate and department chairs, a partially stand-alone unit, called the ColoradoSPH Office of Research, was formed in September 2014, led by the associate dean for research and staffed initially by two administrative positions known as grants life cycle managers. This unit is responsible for increasing the breadth and depth of faculty and student research, as well as providing pre- and post-award research administrative support. Implementation of this effort began March 2015, consistent with the strategies described under the second goal of the research priority summarized at the beginning of this section. Related tasks include developing budgets, facilities statements, subcontracts, and preparing and submitting grants and contracts. Post-award setup and budget tracking services, reallocation of expenditures and audit response are also carried out through this school-based office. Specific departments and centers have been assigned to a specific grants life cycle manager, who supports and coordinates the pre- and post-award research administrative process with department administrators, ColoradoSPH central staff, and the Office of Grants and Contracts. The grants life cycle managers employ electronic software to record time expended in pre- and post-award support of faculty research activities. This information is reviewed quarterly with Dr. Manson and departmental chairs to assess the adequacy of resources in the context of investigator, center, and department level of effort, to identify periods of high demand, and to inform priority setting in (re-)allocating administrative support. The grants life cycle managers also meet twice monthly with Dr. Manson to review work-flow issues, to discuss administrative processes and procedures, to develop and improve tools as well as resources that can assist investigators in overseeing their grants and contracts, and to examine working relationships with other administrative units within the ColoradoSPH and at the university-level.

The School's research committee, formally chartered by the Faculty Senate, was launched in June 2014. Serving in an advisory capacity to the associate dean for research, the Research Committee is charged with oversight, review, and recommendations for the development, progress, and priorities for research conducted by the faculty and students of the School. The committee also investigates new public health research areas and makes recommendations concerning research priorities in the School; identifies new sources of funding and novel funding approaches; and makes recommendations to the Dean regarding policies for the distribution of research funding and indirect costs allocations. CU Anschutz also has a policy allowing for cost sharing of indirect funds awarded to grants between schools and departments. This greatly facilitates the equitable distribution of resources associated with collaborative projects.

The associate dean for research, research committee members, center directors, and department chairs are finalizing a robust set of performance indicators to assess and longitudinally monitor the comprehensiveness, quality, relevance, and timeliness of ColoradoSPH Office of Research administrative support. These indicators operationalize:

- Faculty awareness of pre-award requirements for proposal preparation specific to major research sponsors, including knowledge of basic mechanisms of support, application components, relevant terms and conditions
- Faculty perceptions of pre-award support in communicating application procedures, both internally and externally, including the usefulness of key documents (e.g., templates of subcontracts, data use agreements, resources and environments, biographical sketches, etc.) and ensuring access to as well as guidance in preparing other, related application materials
- Time between initiation and completion of critical pre-award administrative tasks supporting proposal preparation, including establishing and monitoring internal timelines for assembly, for investigator, departmental, school and university review, and submission of applications
- Faculty awareness of post-award requirements for research grant/contract account preparation, implementation, reporting, and close-out, focusing on parent and subcontract expenditures consistent with sponsors' terms and conditions
- Faculty perceptions of post-award support in ensuring appropriate stewardship of research and contract funds, both internally and externally, through regular surveillance of expenditures, reconciliation of expenses with budget expectations, coordinating faculty effort with investigators and departmental administrators in keeping with sponsored and non-sponsored responsibilities, projecting budget expenditures over time to facilitate appropriate allocation of resources, and technical assistance in completing annual and final fiscal as well as scientific reports
- Time between initiation and completion of critical post-award administrative tasks supporting research grant and contract implementation, including establishing and monitoring timelines for meeting all internal and external requirements related to applicable fiscal and scientific expectations

The faculty also is being surveyed with respect to its needs and priorities regarding grant and contract knowledge, skills, and resources that will facilitate increases in the number and competitiveness of applications submitted to prospective research sponsors.

### **3.1.B DESCRIPTION OF CURRENT RESEARCH UNDERTAKEN IN COLLABORATION WITH LOCAL, STATE, NATIONAL OR INTERNATIONAL HEALTH AGENCIES AND COMMUNITY-BASED ORGANIZATIONS**

Our collaborative research with local, state, and national or international health agencies as well as community-based organizations continues to expand in its breadth as well as extent. Research grants that involve these types of collaborations are separated from the full lists of research grants and shown in Table 3.1.b in Resource File 3.1.b. For the three reporting years, these represent 56% of the total research grants in the School. The studies listed are examples of significant partnerships with significant, bidirectional involvement, not simply efforts funded by such agencies and undertaken on their behalf. Partners range from an extensive array of tribal programs, through municipal (e.g., City of Denver, Aurora, Greeley), county (e.g., Denver, Weld, Jefferson, Adams, Morgan), and state (e.g., Colorado Departments of Health Care and Financing, Public Health and Environment, Agriculture, Labor and Employment) organizations, to federal and national health agencies (e.g., Indian Health Service, Centers for Disease Control and Prevention, National

Institutes of Health, Departments of Agriculture, Transportation, Interior), as well as international (e.g., World Health Organization, Pan American Health Organization, World Bank).

Examples of community and practice-based grant projects include:

- The Technology Integration Program: An Extension of the Environmentally Friendly Drilling Systems (CU Anschutz)
- Using Dental Health Videos – Novellitos – During Medical Well Child Care Visits to Change Caregiver Oral Health Behaviors (CU Anschutz)
- Special Diabetes Programs for Indians Initiatives Coordinating Center (CU Anschutz)
- National Supplemental Screening Program (CU Anschutz)
- Colorado Public Health Practice-Based Research Network (CU Anschutz)
- Determining the Cost of Select Core Services Across Colorado Public Health (CU Anschutz)
- Implementing Evidence-Based School Environment, Policy, and Curricular Changes to Increase Opportunities for Health (CU Anschutz)
- HHS Teenage Pregnancy Prevention Program (CU Anschutz)
- Screening and Linkage to Services for Autism (SaLSA) (CU Anschutz)
- Mountain and Plains Education and Research center (CU Anschutz and CSU)
- Integrated Food Safety Center of Excellence (CSU)
- NewSTEPS: Newborn Screening Technical Assistance and Evaluation Program (CU Anschutz)
- Sexuality, Health and Rights Among Youth in the United States: Transforming Public Policy and Public Understanding (CSU)

### **3.1.C LIST OF CURRENT RESEARCH ACTIVITY OF ALL PRIMARY FACULTY IDENTIFIED IN CRITERION 4.1.A, INCLUDING AMOUNT AND SOURCE OF FUNDS, FOR EACH OF THE LAST THREE YEARS**

Table 3.1.c(1) in Resource File 3.1.c(1) shows all research grants housed in the ColoradoSPH. This table is divided into three parts: 1) ColoradoSPH faculty considered “core” according to the CEPH definition; 2) other ColoradoSPH considered core by the School; and 3) secondary faculty (adjunct, affiliate, clinical, and secondary appointments). Table 3.1.c(2) shows research grants that are housed elsewhere but for which a ColoradoSPH primary faculty member is a significant collaborator. ColoradoSPH faculty at CSU and UNC typically administer their grants through their respective institutions. Those grants are summarized in Table 3.1.c(3). All of these tables are located in Resource File 3.1.c.

Table 3.1.c(4) below summarizes all grants and contracts for the School. In the three-year period 2012-2015, 103 faculty secured over \$125 million in 375 grants and contracts across the three campuses, averaging about \$36 million in direct costs per year during this period. Of these, 48%-56% (depending on campus and year) of the sponsored research projects were considered by the faculty to be community-based (defined as “research that takes place in community settings [such as schools, clinics, tribal organizations, etc.] and involves community members in at least one of the following roles: designing the study, reviewing procedures or study instruments, recruiting participants, collecting data, analyzing or interpreting data, or as members of a project-related community advisory board). Health equity-focused research accounted for 45% to 65%

(depending on the campus and year) of the total awards, and 40%-51% (depending on campus and year) of these grants and contracts reported student participation in the supported research.

ColoradoSPH faculty continue to be very successful in securing funding for research. In 2012-2015, faculty members at CU Anschutz secured approximately \$110 million (total costs) from federal and non-federal sponsors. Among 14 schools and colleges across CU Denver/Anschutz, ColoradoSPH ranked 2nd behind only the CU School of Medicine in total sponsored funding in each of the three years. Between seven and eight of the largest 50 research awards each year were granted to ColoradoSPH faculty. During the same period, ColoradoSPH faculty members were involved directly as co-principal investigators or co-investigators in \$111 million of additional sponsored research across other schools on the CU Anschutz campus. Over the same three-year period, public health faculty at CSU were awarded approximately \$15 million in research funding. UNC has historically been focused on training with a small research enterprise, and during this reporting period had no extramurally funded projects.

TABLE 3.1.C(4) SUMMARY OF GRANTS AND CONTRACTS BY YEAR AND CAMPUS

<b>CU Anschutz Faculty</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
Number of grants and contracts	151	141	136
Total Costs (direct + indirect)	\$38,407,274	\$36,923,016	\$34,335,559
Percent (%) community-based projects	56%	51%	48%
Percent (%) student participation	45%	53%	51%
Percent (%) address health equity	60%	65%	61%
<b>CSU Faculty</b>	<b>2012-13</b>	<b>2013-14</b>	<b>2014-15</b>
Number of grants and contracts	64	82	77
Total Costs (direct+ indirect)	\$5,219,941	\$5,851,186	\$4,456,731
Percent(%) community-based projects	52%	52%	48%
Percent (%) student participation	41%	40%	45%
Percent (%) address health equity	47%	45%	47%

### 3.1.D IDENTIFICATION OF MEASURES BY WHICH THE SCHOOL MAY EVALUATE THE SUCCESS OF ITS RESEARCH ACTIVITIES, ALONG WITH DATA REGARDING THE SCHOOL'S PERFORMANCE AGAINST THOSE MEASURES FOR EACH OF THE LAST THREE YEARS

Table 3.1.d summarizes outcome measures for research activities. Faculty publication productivity is used as a measure of research success. Over the 2012, 2013, and 2014 calendar years, ColoradoSPH faculty published 1,800 documents, including 1,630 (91%) in peer reviewed journal articles. There were 3.6-3.9 publications per faculty member per year. Over 60% include authors from other institutions, indicating the wide-ranging collaborative research networks that faculty members have established. Faculty members have published in high quality journals such as Journal of the American Medical Association, American Journal of Public Health, Diabetes Care, Annals of Applied Statistics, Obesity, American Journal of Epidemiology, Prevention Science, and Circulation.

TABLE 3.1.D MEASURABLE OUTCOMES RELATED TO RESEARCH

<b>Objective</b>	<b>Measure(s)</b>	<b>Target</b>	<b>2012-2013</b>	<b>2013-2014</b>	<b>2014-2015</b>
2.1 Advance knowledge through the dissemination of publications and presentations	Total number of publications <sup>1</sup>	Peer reviewed articles – No Target	511	543	576
		Books – No Target	4	5	7
		Book Chapters – No Target	30	15	27
	Number of publications per capita for faculty <sup>1</sup>	3	3.6	3.8	3.9

Objective	Measure(s)	Target	2012-2013	2013-2014	2014-2015
2.1 Advance knowledge through the dissemination of publications and presentations	Percent of publications that are collaborative between departments, schools and universities <sup>1</sup>	30% with faculty from other ColoradoSPH departments	11%	15%	15%
		30% with faculty from other schools on campus	32%	38%	37%
		10% with faculty from partner institutions	10%	10%	9%
		10% with faculty from other universities	61%	62%	62%
2.2 Maintain a large portfolio of sponsored grant awards across the ColoradoSPH	Total dollar value (direct costs) of all awards to CPSH faculty (administered through the School; includes only CU Anschutz campus)	Total - \$30M <u>direct</u> costs	\$26,837,501	\$26,657,054	\$27,430,225
		NIH awards - \$8M	\$7,974,458	\$7,264,578	\$7,475,282
		Other federal awards - \$13M	\$13,260,877	\$11,379,657	\$11,709,717
		Non-federal awards - \$9M	\$5,602,165	\$8,012,819	\$8,245,226
	Types of awards	30% of awards are community-based research projects	56%	51%	47%
		30% of awards include collaboration with public health practitioners	56%	60%	58%
		30% of awards address health equity and health disparities	60%	64%	61%
2.3 Increase research efficiency and productivity by leveraging university resources and improving School-wide services for administration and support of research, including collaborative grants across partner institutions	Number of awards that include collaboration across partner institutions (CU, CSU, UNC)	3, with increase of 1 per year	2	3	4
	Institutional expenditures per faculty FTE for research support (not including research infrastructure provided by centers to center affiliated faculty) <sup>2</sup>	\$1,500	\$310,000/76 = \$4,079	\$253,000/76 = \$3,329	\$307,000/76 = \$4,039
	ICR returned to departments <sup>3</sup>	90%	0%	0%	0%
	ICR returned to centers <sup>4</sup>	90%	\$321,000 (70-90%)	\$324,000 (70-90%)	\$305,000 (70-90%)



Objective	Measure(s)	Target	2012-2013	2013-2014	2014-2015
2.4 Increase research opportunities and mentoring for junior faculty	Number of faculty development programs to enhance research success	3	0	1	2
	Percent of assistant professors and instructors who have an identified mentor (CU Only)	100%	n/a	n/a	100%

<sup>1</sup>Publications are summarized by calendar year, rather than by academic year. Column “2012-2013” contains information about publications from the 2012 calendar year, and so on.

<sup>2</sup>The totals represent the amount expended on research administration by the School. This does not include any expenditures for research administration provided by centers or projects.

<sup>3</sup> Prior to Fiscal Year 2012-2013, 70% of indirect cost funds received by the School were allocated to each department for discretionary purposes. From Fiscal Year 2012-2013 to Fiscal Year 2014-2015, 100% of the funds received were used to fund school-wide research administration. Starting in Fiscal Year 2015-2016, departments will receive 90% of the funds received by the School.

<sup>4</sup> The amount allocated to each center varies per their individual agreement. Starting in Fiscal Year 2015-2016, centers will receive 90% of the funds received by the School.

### 3.1.E DESCRIPTION OF STUDENT INVOLVEMENT IN RESEARCH

Student involvement in research is evaluated through several sources. Over the three-year period 45%, 52%, and 58% of funded projects had student involvement, either through paid employment or a practicum, capstone or thesis/dissertation project. Over the three-year period, 14%, 18%, and 17% of faculty publications included students as co-authors. Additionally, our student exit survey asks all graduating students whether they participated in extramurally-funded research while a student. Table 3.1.e below shows the proportion of students who reported participating by year and program. Around half of MPH students and 80-100% of MS and PhD students report participation in funded research.

TABLE 3.1.E PERCENT (%) OF GRADUATING STUDENTS REPORTING PARTICIPATION IN FUNDED RESEARCH

Objective	Measure	Target	2012-13	2013-14	2014-15
1.2 Identify funding opportunities for student support in all programs and all campuses, including identification of paid positions on research grants, training grants, and scholarships	Percent of students participating in grant-funded research	MPH – 40%	40%	45%	53%
		MS – 80%	80%	86%	80%
		PhD – 80%	100%	88%	100%
		DrPH*	n/a	n/a	n/a

\* No DrPH students have graduated and completed the exit survey.

All students in academic degree programs (MS and PhD) conduct research for their thesis and dissertation projects. MPH students may complete practice-based or research projects for their capstone projects. DrPH students complete a practice-oriented research dissertation. Poster presentations for capstone projects are on display outside the Dean’s office on a year-round basis.

### 3.1.F ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET

This criterion is met.

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#### STRENGTHS

ColoradoSPH has a well-established, highly recognized, and vigorous research program. Funding levels are very high for a school of this size and age. Faculty and students actively contribute to the development and dissemination of research findings related to a wide variety of public health issues. ColoradoSPH faculty direct a large portfolio of research projects, have high numbers of publications in high-quality peer-reviewed journals, and participate in national and international scientific societies. There is a consistent level of collaboration between departments, schools, and universities, and with public health and community agencies, in keeping with the School's emphasis on interdisciplinary, team-based science. The School has twelve active research programs and centers, contributing to the School's capacity to address its historic areas of emphasis as well as expand to new areas. A substantial investment in community-based participatory research is evident as well. As a consequence of this greater reach into the surrounding communities, new research priorities are on the horizon. Senior leadership, a research advisory committee, and research administrative support have been established, with appropriate mechanisms now in place for fostering a growing research enterprise. An array of pilot research opportunities is available to faculty. Both doctoral and master's students participate in research and contribute to publications.

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#### WEAKNESSES

Cross-campus research collaboration is challenged by contracting requirements and by differences among our partner institutions with respect to expectations regarding faculty participation. Although ColoradoSPH is nationally recognized for its large number of American Indian faculty (nine assistant to full professors), in general, other racial/ethnic minorities are less well represented. The recruitment and support of other racial/ethnic minority faculty will be critical to the future diversity of the research enterprise. Though already substantial, further expansion of community-based participatory research is desirable and warranted, but introduces added demands in terms of the research process.

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#### PLANS

We need to increase research training grants – long term institutional grants (e.g., Diversity Supplements; T32s) as well as short-term, intensive grants (e.g., R-25 research education programs) – especially those that capitalize on our historic strengths and that anticipate future expansion along new lines of inquiry. However, this must be pursued in a deliberate manner that simultaneously secures appropriate levels of faculty support, and that does not further increase uncompensated expectations of already substantial research and instructional workloads. A goal in our strategic plan is to implement a cross-campus collaborative pilot grant program to encourage new research collaborations. We expect to implement this program in the 2017-18 academic year.

Community-based participatory research carries with it both costs and benefits to faculty, the School, the universities, and communities. It is widely acknowledged that work of this nature requires more resources to conduct, consumes significant faculty effort, and often is slower to yield the scholarly products that count

toward academic promotion and tenure. ColoradoSPH has to be prepared to support the long-term relationships required to nurture and cement such research enterprises.

We must carefully assess the adequacy of the nascent research administrative support infrastructure, be prepared to modify it according to faculty needs and funding dictates, and proactively invest in it to anticipate growing demands. Targeted technical assistance, aggressive development of early-stage faculty research skills, and careful monitoring of the adequacy of mentoring—internal and external—are likely keys to future success.

Lastly, we must continue to support ways to regularly involve students in a wide range of research activities. Clearly, a substantial portion of students report participating in research. The School's offices of research and academic/student affairs are collaborating on specific strategies to encourage and support student contribution to scholarly publications. One example is the recent adoption of both professional and student chapters of the Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), enabling us to capitalize on a wide array of relevant activities that address this goal. ColoradoSPH's link to the newly funded National Institutes of Health-sponsored National Research Mentoring Network also promises to expand mentorship opportunities that will better equip students to participate in the dissemination of the findings of their research.



## 3.2 SERVICE

### 3.2.A DESCRIPTION OF THE SCHOOL'S SERVICE ACTIVITIES, INCLUDING POLICIES, PROCEDURES AND PRACTICES THAT SUPPORT SERVICE

The ColoradoSPH faculty and students are committed to providing service to the community and the profession of public health as an integral part of their professional duties and learning strategy. The faculty and administration have developed a workload policy (Resource File 4.2.a(2)) that serves as a guideline for salary and time expectations. The model has as its base approximately 9% salary coverage for service among tenure track faculty to the department, the School, the profession, and the community. ColoradoSPH faculty and students provide important service that benefits the broader community and improves public health. Service contributions to the improvement of public health, apart from research and teaching, are summarized below.

The faculty have a long tradition of close connections to programs in the community that affect public health. The School has held written agreements with state and local health departments and the Public Health Alliance (a consortium of Colorado public health professional societies) to conduct service-based training and evaluation. Each agreement is developed jointly by the interested unit or faculty member and community agency and reviewed by the School's administration and by University legal counsel prior to implementation to assure alignment with university policies.

Professional students (MPH and DrPH) are connected to community-based public health activities via the required practicum and capstone learning experiences. Many ColoradoSPH students choose to perform additional community service outside of the structured school environment.

The faculty serve the field of public health in numerous capacities. Approximately 25% of our faculty have served in editorial capacities (i.e., as editor, consulting editor, associate editor, or on an editorial board) for journals over the past three years, including journals such as *Journal on Aging and Ethnicity*, *Exercise and Sport Science Reviews*, *Journal of Clinical and Experimental Oncology*, *Journal of Veterinary Science and Medicine*, *American Journal of Health Promotion*, *Diabetes*, and *Econometrics*.

Many faculty have served on community boards, such as the American Heart Association Denver Metro Board, Best Start for Babies, Early Childhood Council of Larimer County, Early Learning Ventures Alliance of Arapahoe County, Health District of Northern Larimer County, Colorado Prevention Center, Worksafe Colorado, Colorado Department of Public Health and Environment (CDPHE) Breast and Cervical Cancer Screening Program, CDPHE Public Health Improvement Steering Committee, Larimer County United Way, and Marion Downs Hearing Center Foundation, among many others.

Service to national organizations has included faculty serving in many leadership roles such as Chair of the Council on Epidemiology and Prevention, American Heart Association; Co-Chair of the Population Health in All Professions Task Group for the Framing the Future Initiative of the Association of Schools and Programs of Public Health; Psychological and Person Factors Track Chair for the Society of Behavioral Medicine Annual

Conference; Chair of the Section on Environmental and Technology of the American Sociological Association; Chair of the Education Committee for the LIVESTRONG Survivorship Centers of Excellence; Chair of the Task Force on Mental Health and Human Rights for the American Orthopsychiatric Association; and Officer of the National Board of Directors for the American Cancer Society, among many others.

Faculty participation as grant reviewers includes chairs of several National Institutes of Health (NIH) study sections (e.g., Dissemination and Implementation Research in Health – Goff; Cancer Epidemiology and Genetics – Ghosh) and numerous members of NIH and other review committees (e.g., NIH Epidemiology of Cancer; NIH Kidney, Nutrition, Obesity and Diabetes; NIH Mental Health; NIH Risk, Prevention and Intervention for Addictions; NIH Behavioral and Social Consequences of HIV; NIH Community-Level Health Promotion; Indian Health Services; French National Research Agency; Centers for Disease Control and Prevention; National Academy of Sciences/National Research Council Office for Eastern Europe and Eurasia; National Institutes for Occupational Safety and Health; NHLBI Tobacco Control Regulatory Research; Board of Scientific Counselors for the National Cancer Institute, and others).

### **3.2.B DESCRIPTION OF THE EMPHASIS GIVEN TO COMMUNITY AND PROFESSIONAL SERVICE ACTIVITIES IN THE PROMOTION AND TENURE PROCESS**

Service and Public Health Practice are two of four areas that are used to evaluate faculty for promotion and tenure decisions. When speaking of “service to the field of public health,” both of these categories are relevant. Appendix D of the ColoradoSPH bylaws (Resource File 4.2.c) and <http://www.ucdenver.edu/academics/colleges/PublicHealth/Faculty/facultyaffairs/Documents/Faculty%20Handbook%2c%2010-22-2014.pdf>) includes examples of the types of activities that are considered public health practice and service that constitute meritorious and excellent performance, as well as the emphasis placed on these criteria (see section 3.2.d below). The candidate’s dossier includes sections on Public Health Practice and Service as outlined in the faculty handbook, which are both evaluated sequentially, first by the departmental committee, then by the School Appointment, Promotions, and Tenure Committee. For promotion to associate professor, a candidate must be excellent in one category and meritorious in at least two additional categories, with the categories being teaching, research, public health practice, and service. Thus, promotion to associate professor cannot occur without a candidate being rated as at least meritorious in either service or public health practice. The requirements for promotion to professor are similar, with a higher level of accomplishment to be achieved. That is, a candidate must be excellent in at least two categories and meritorious in at least one additional category. Faculty

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## **UNIVERSITY OF NORTHERN COLORADO**

Most ColoradoSPH faculty at UNC have a 60% teaching, 20% research, and 20% service load. Community service would fall into the 20% service category. The College of Natural and Health Sciences policies and procedures for faculty evaluation and performance contain specific information about promotion and tenure (<http://www.unco.edu/nhs/pdf/FacEvalDocApril2013.pdf>). The document outlines professional, university, and community service that is valued by the university.

## COLORADO STATE UNIVERSITY

Decisions concerning tenure, promotion, and merit salary increases at CSU are linked to the faculty member's productivity in teaching and advising, research and other creative activity, and university and professional service. Each academic unit establishes expected levels of productivity for the unit in each of these areas. Productivity is assessed by relating the effort expended to the outcome, in terms of effectiveness, impact, and documentation of the activity. The responsibilities of faculty members for each of these activities will vary, depending upon the mission and needs of the academic unit and the expertise and interests of the faculty. <http://facultycouncil.colostate.edu/files/manual/table.html>

### 3.2.C LIST OF THE SCHOOL'S CURRENT SERVICE ACTIVITIES, INCLUDING IDENTIFICATION OF THE COMMUNITY, ORGANIZATION, AGENCY OR BODY FOR WHICH THE SERVICE WAS PROVIDED AND THE NATURE OF THE ACTIVITY, OVER THE LAST THREE YEARS

Please see Resource File 3.2.c for Table 3.2.c(1) (Template 3.2.1) and Table 3.2.c(2) (Template 3.2.2).

### 3.2.D IDENTIFICATION OF THE MEASURES BY WHICH THE SCHOOL MAY EVALUATE THE SUCCESS OF ITS SERVICE EFFORTS, ALONG WITH DATA REGARDING THE SCHOOL'S PERFORMANCE AGAINST THOSE MEASURES FOR EACH OF THE LAST THREE YEARS

The School's identified measures for service are shown below. We met and exceeded the goals for leadership positions in discipline-related professional organizations, editorial positions for professional and scientific journals, and service through participation in community-based organizations, advisory boards, public health agencies, and consultations with industry on public health issues. We did not meet our goal that seven faculty would be involved in either the Colorado Public Health Association or American Public Health Association sections or committees; five faculty members provided service in this way. We have also not met our goals for student participation in service activities.

TABLE 3.2.D MEASURABLE OUTCOMES RELATED TO STUDENT AND FACULTY SERVICE ACTIVITIES

Objective	Measure	Target	2012-2013	2013-2014	2014-2015
1.6 Promote student involvement in education, research, and service activities with faculty and other professionals	Percent of students participating in service activities while in training	MPH- 90%	40%	40%	47%
		DrPH- 90%	n/a	n/a	n/a
		MS- 90%	20%	29%	40%
		PhD- 90%	100%	67%	33%
5.3 Faculty will provide service to the field of public health	Number of faculty who are involved in Colorado Public Health Association and/or APHA Sections and Committees	7	5	5	5

Objective	Measure	Target	2012-2013	2013-2014	2014-2015
5.3 Faculty will provide service to the field of public health	Number of faculty who hold leadership positions in discipline-related professional associations	20	37	34	34
	Number of faculty who hold editorial positions for professional and scientific journals	10	23	26	25
	Number of faculty serving as members of community-based organizations, community advisory boards, public health agencies, or as consultants to industry groups on public health issues	30	60	58	60

n/a indicates not applicable – no DrPH students have graduated and completed the exit survey

### 3.2.E DESCRIPTION OF STUDENT INVOLVEMENT IN SERVICE, OUTSIDE OF THOSE ACTIVITIES ASSOCIATED WITH THE REQUIRED PRACTICE EXPERIENCE AND PREVIOUSLY DESCRIBED IN CRITERION 2.4

Our exit survey asks students whether, during their time as a student, they participated in either informal or formal service activities. Informal service activities were reported by 30-38% of students in the years 2012-13, 2013-14, and 2014-15. Formal service activities were reported by 19-34%.

The Office of Student Affairs organizes activities several times each year in which ColoradoSPH students, staff, and faculty work together in community service. These have included work days at the Rocky Mountain Food Bank and Project CURE. ColoradoSPH Student Council also organizes service opportunities throughout the year. For example, during 2015 National Public Health Week, the Student Council organized a trail clean-up activity at Cherry Creek Reservoir and a volunteer activity with Groundwork Denver at Bear Creek State Park. Other organizations at which students have provided service in the past three years include:

- Color Our World – art nights with local agencies
- 9News Health Fair – UNC campus
- Project Weld Connect
- Make Today Count! Campaign
- CanDo
- Cooking Matters™
- Bike Fort Collins
- Flood Relief
- Greeley-Evans School District 6
- United Way of Larimer County (Dead Celebrity 5k)
- Global Refugee Center



- Groundwork Denver
- Bluff Lake Nature Center
- American Heart Association Heart Walk
- Farm harvesting project
- Catholic Charities toy drive
- Habitat for Humanity
- National Public Health Week activities
- Larimer County Department of Health and Environment
- Partners In Health
- Fuel for Fun (nutrition education program)
- Boulder County Public Health
- Outdoor Colorado
- Larimer County Food Bank
- Colorado Department of Public Health and Environment
- Fort Collins Rescue Mission
- Vida Sana

At the CSU campus, MPH students have the opportunity to participate in an MPH/Peace Corps Masters International Program (PCMI; see program information in Resource File 3.2.e.) This three and one-half year program incorporates a Peace Corps experience that counts toward the practicum requirement and can be used for the capstone project. Tuition support is set aside for students who participate in this opportunity. There are currently two students serving through this program, one in Zambia and one in Ethiopia. A third has received an assignment in Guyana.

### **3.2.F ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met.

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#### **STRENGTHS**

The faculty and students of the ColoradoSPH are very active in service that enhances public health and enriches communities. For faculty, this service extends around the globe. We have recently instituted ColoradoSPH connect, which is an online system for students to view practicum, capstone, and service opportunities.

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#### **WEAKNESSES**

We have not met our goal that 90% of ColoradoSPH students will be involved in service activities, through either School-sponsored or other opportunities. We have relatively few service activities that bring faculty, staff, students, and alumni together. Creating regular opportunities could enhance the service provided, improve student learning, and reinforce what we think is already a strong sense of community. We do not have a strong system in place to capture information about student service activities.

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## PLANS

We plan to add elements to our student exit survey to better capture student service activities in 2015-16. The Office of Student Affairs has recently enhanced systems to connect students with service opportunities and is developing more group service opportunities for students and faculty. The office is working with university risk management to review plans for offering formal volunteer opportunities. Student council leaders are formalizing plans to engage students at their respective campuses in formal service activities in the local community. Student communications from the Office of Student Affairs, which occur twice weekly, will publicize opportunities, and each student council maintains a Facebook page that is also used to advertise opportunities outside the classroom. The scope of work for the associate dean for public health practice includes engagement of adjunct and clinical faculty who work in government and community agencies and organizations, and this could lead to stronger connections and opportunities for local service for students and faculty. We recognize that an important strategy for engaging in relevant service is to increase the visibility of the School in communities and among community organizations so that they recognize the benefit and take advantage of the opportunities that come with having a school of public health in our region.

## 3.3 WORKFORCE DEVELOPMENT

Part of the ColoradoSPH mission is to provide degree-targeted education and workforce development through a system of organized training, support, and evaluation. The School is also committed to ongoing education and training of the public health workforce, broadly defined to include anyone working in population health improvement activities. Much of the School's workforce development activity is coordinated by the Center for Public Health Practice (CPHP) <https://www.publichealthpractice.org/>. T. Byers, the founding director of the CPHP, stepped down from this role in 2015, as he plans for upcoming retirement. The CPHP is led by interim director C. Hunt and is staffed by experienced public health professionals who provide workforce development, public health project development consultation, and service to individuals and organizations across Colorado and the Rocky Mountain West, as supported by a Health Resources and Services Administration grant to the Rocky Mountain Public Health Training Center, serving the 6-state DHHS Region VIII (CO, UT, WY, MT, ND, SD). Much of the workforce training activity for ColoradoSPH has been supported by a HRSA grant to the Colorado Public Health Training Center (2010-2014), directed by T. Byers, and operated within the CPHP. In late 2014, the prior HRSA grant was replaced by a four-year HRSA grant to support the Rocky Mountain Public Health Training Center. A list of funded training and continuing education activities within the School is available in Resource File 3.3 (Template 3.3.1).

### 3.3.A NEEDS ASSESSMENT

All trainings offered are designed to meet the needs of enhancing project management and leadership skills of the public health workforce, broadly defined to include anyone working on population health improvement. The Center for Public Health Practice collaborates with the Colorado Public Health Alliance and with the AHEC system in Colorado to assess annually the educational and training needs of the Colorado public health workforce. A formal quantitative needs assessment was done five years ago, the results of which are available in Resource File 3.3.a, and there have been annual updates done qualitatively in collaboration with Colorado AHECs and the Public Health Alliance. With the expansion of the Rocky Mountain Public Health Training Center (RM-PHTC), the needs assessment for both Colorado and the region will now be led by the University of Utah, a collaborating partner in the 6-state regional training center. A region-wide assessment will be done on behalf of the RM-PHTC by the University of Utah in the May-August 2015 timeframe. That assessment will enumerate public health workers in the region, and will sample both public health agencies and primary health care agencies to assess their perceived needs and barriers for training. This assessment will be harmonized to methods now in development for the ten regional HRSA PHTCs.

### 3.3.B LIST OF THE CONTINUING EDUCATION PROGRAMS, OTHER THAN CERTIFICATE PROGRAMS, OFFERED BY THE SCHOOL, INCLUDING NUMBER OF PARTICIPANTS SERVED, FOR EACH OF THE LAST THREE YEARS. THOSE PROGRAMS OFFERED IN A DISTANCE-LEARNING FORMAT SHOULD BE IDENTIFIED

The ColoradoSPH continuing education program consists of the following:

- Public Health seminar series
- Public Health symposia
- Colorado Public Health Training Center (HRSA, 2010-2014)
- Rocky Mountain Public Health Training Center (HRSA, 2014-2018)
- Technical assistance to community-based organizations
- Online research tutorials (CAIANH; Continuing Education-credit offered)
- The American Heart Association Ten Day Seminar on the Epidemiology and Prevention of Cardiovascular Disease (directed by Dean Goff)
- Health Links™ Healthy Business Certification (directed by L. Newman)

Table 3.3.b summarizes the number of trainings and number of trainees in each of the past three years, relative to goals set in the ColoradoSPH strategic plan.

TABLE 3.3.B MEASURABLE OBJECTIVES RELATED TO CONTINUING EDUCATION PROGRAMS

Objective	Measure	Target	2012	2013	2014 <sup>1</sup>
5.2 Increase the reach and effectiveness of training and technical assistance offered by the ColoradoSPH to the public health workforce in Colorado	Number of public health practice trainings per year	50 total	64	56	25
		25 in applied research methods	48	42	19
		15 in health equity, health disparities	23	20	9
	Number of trainees per year	2000 total	2560	2552	1177
		1000 in applied research methods	1920	1914	882
		600 in health equity, health disparities	896	893	411

Note: data are for calendar years shown

<sup>1</sup> Efforts in 2014 were reduced due to a substantial reduction in HRSA funding that year

### 3.3.C DESCRIPTION OF CERTIFICATE AND OTHER NON-DEGREE OFFERINGS OF THE SCHOOL

ColoradoSPH has two graduate certificate programs, the Certificate in Public Health Sciences and the Certificate in Global Public Health. An additional graduate certificate in Maternal and Child Health is under development. A professional certificate of achievement in Health Industry Analytics is also offered.

#### CERTIFICATE IN PUBLIC HEALTH SCIENCES

The Certificate in Public Health Sciences is designed as a way for working professionals, especially those already working in public health settings but with no training in public health, to gain such training. A variety of students enroll in the program, including those originally targeted, as well as individuals with graduate

training who desire public health skills to supplement their primary area. Several post-doctoral research fellowships that reside at the Anschutz Medical Campus incorporate the certificate program into their training programs. However, the majority of certificate students are new to public health and enter the program as a first step towards an MPH. The Certificate is offered at CU Anschutz and UNC. The program requires a minimum of 15 graduate credit hours to be completed within a maximum period of five years. All courses in the Certificate program are regular graduate level public health courses that are part of the curriculum for the MPH. Eight credits are required courses in epidemiology (EPID 6630 or CHBH 6200), biostatistics (BIOS 6601 or SRMS 6170) and foundations in public health (PUBH 6600). Seven credits are electives in public health that can be chosen from among all of the courses offered by ColoradoSPH (if the student meets the prerequisites). After completing the program with an average program GPA of 3.0 or higher, students may apply for admission into the MPH Program.

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## CERTIFICATE IN GLOBAL PUBLIC HEALTH

The Certificate in Global Public Health is designed to cultivate a graduate-level public health perspective of globalization and global health issues, programs, and best practices. Students learn to use public health methods to address global public health challenges. The program requires a minimum of 15 graduate credit hours to be completed within a maximum period of five years. Ten credits are required courses in epidemiology (EPID 6630), biostatistics (BIOS 6601), public health in the global community (CBHS 6632), and geographic perspective on global health (EHOH 6621). Five credits of global health electives are selected from a list of 11 courses. All courses in the certificate program are regular graduate level public health courses that are part of the curriculum for the MPH, and can be applied towards an MPH if the student desires.

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## CERTIFICATE IN MATERNAL AND CHILD HEALTH

In June 2014, the ColoradoSPH received a five-year training grant from the Maternal and Child Health (MCH) Bureau of the federal Department of Health and Human Services. By the end of the grant's second year, the School plans to launch a Certificate in Maternal and Child Health. In keeping with the general guidelines for the other certificates at the School, the Certificate in Maternal and Child Health will most likely require 15 credits, including: epidemiology (EPID 6630), biostatistics (BIOS 6601), foundations in public health (PUBH 6600), and additional coursework specific to maternal and child health. The certificate will be designed so that it can be earned entirely online, to maximize accessibility to training among the MCH workforce in rural areas. As with other certificates, all of the credits earned can be applied to the MPH degree if the students applies to a masters' program and is accepted.

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## PROFESSIONAL CERTIFICATE OF ACHIEVEMENT IN HEALTH INDUSTRY ANALYTICS

In fall 2014, we initiated a short professional certificate of achievement program targeted to employees of health care providers and systems with corporate offices in the South Denver area, where the University of Colorado acquired a satellite campus in early 2015. The rationale for this program is that in the age of the Affordable Care Act and big data, health care providers and health systems are being challenged to achieve the goals of the health care "Triple Aim" (Population Health, Patient Experience of Care, and Reduced Per Capita Cost). Health professionals need to acquire new analytic skills in financial decision making, quality and performance improvement, and population health management. The School is offering a series of graduate

courses (a 9-credit sequence in 1- and 2-credit accelerated evening formats) in Health Industry Analytics. The specific target is health industry professionals and managers who want to acquire enhanced analytic skills for data-driven decision-making and seek an applied, case-based learning environment. Students are expected to have a minimum of two years of health industry experience. These courses could transfer as elective credit into a certificate in public health sciences or an MPH program. Based on feedback from external partners and students, we have decided to put the professional certificate on hold and explore incorporating the coursework into our Health Systems Management MPH program or offering the content in a workforce development format through the Center for Public Health Practice.

Total enrollment in the certificate programs over the past three years is shown in Table 3.3.c below.

TABLE 3.3.C CERTIFICATE PROGRAM TOTAL ENROLLMENT FROM 2012-2015

Certificate Program	2012-13	2013-14	2014-15
Certificate in Public Health Sciences- CU	65	74	77
Certificate in Public Health Sciences- UNC	9	7	6
Certificate in Global Public Health	12	14	9
Prof. Cert. of Achievement in Health Industry Analytics	n/a	n/a	5-10 students per course

n/a = not applicable, program was not in place during these years

## OTHER CONTINUING EDUCATION

Much of the workforce training activity conducted by the ColoradoSPH has been supported by a HRSA grant to the Colorado Public Health Training Center (2010-2014), directed by T. Byers and operated within the CPHP. In late 2014 that HRSA grant was replaced by a four-year HRSA grant to support the Rocky Mountain Public Health Training Center (RM-PHTC), which will meet public health workforce training needs across the 6-state DHHS Region VIII. The School, via the RM-PHTC, is responsible for prioritization, delivery, and evaluation of all trainings. Trainings are announced and marketed on the RM-PHTC website (<https://www.publichealthpractice.org/training-category/Rocky-Mountain-Public-Health-Training-Center>), which includes a learning management system allowing for trainees to identify learning opportunities, enroll, and evaluate the trainings. Those trainings do not include academic credit.

Through the new HRSA training center, stipends are available to encourage MPH and DrPH students to participate in practicum opportunities that address the needs of underserved populations (defined as “rural or frontier area, underserved populations, and/or to support tribal health on a reservation or in an urban Indian population”). These funds became available in 2014-15 and are expected to be available for the following two years. In 2014-15, seven MPH students representing all three campuses received \$1500 stipends.

Public health continuing education opportunities are also offered by the School through its annual Public Health Exchange, monthly public health seminar series, preventive medicine grand rounds, workshops and topical training sessions, and by offerings from the Rocky Mountain Public Health Training Center (Resource

File 3.3.c). ColoradoSPH programs and centers also conduct a large number of educational events open to students and the public. The School's continuing education events are both new and responsive to the expanding field of public health. The Center for Public Health Practice convenes public symposia in partnership with other agencies, such as the Colorado Department of Public Health and Environment. Topics have included Amendment 35 funding (tobacco tax revenues for public health), linking health care and public health in the Affordable Care Act, marijuana and public health, oil and gas development and public health, obesity and public health, and integration of behavioral health and public health (set for August 2015). The School is a sponsor of the Colorado Public Health Association Annual meeting, which involves over 600 Colorado public health professionals. The School's continuing education activities are extended by student and faculty presentations at professional meetings such as the Colorado Public Health Association annual conference, the Colorado Environmental Health annual conference, the American Public Health Association annual meeting, and other regional and national professional meetings.

In 2014, the ColoradoSPH joined with the other four health professional schools on the CU Anschutz campus (Medicine, Nursing, Dentistry, and Pharmacy) to study the common problems in delivering continuing professional education. That group, led by T. Byers of the ColoradoSPH, studied ECHO (Extension for Community Health Outcomes), a successful program developed at the University of New Mexico. After assessing resources on the Anschutz Medical Campus and needs across Colorado, they developed a plan for ECHO Colorado. ECHO Colorado, which launched in the summer of 2015, will use bi-directional video to create learning communities for both health care providers and public health agencies across Colorado to increase the capacity of the health care and public health workforces. ECHO has core funding from The Colorado Health Foundation, as well project specific funding from other sources. (See Resource File 3.3.c for more details.)

### **3.3.D DESCRIPTION OF THE SCHOOL'S PRACTICES, POLICIES, PROCEDURES AND EVALUATION THAT SUPPORT CONTINUING EDUCATION AND WORKFORCE DEVELOPMENT STRATEGIES**

The Colorado workforce development activities are done in collaboration with the Colorado Department of Public Health and Environment (CDPHE) Office of Planning and Partnerships, which has designated the ColoradoSPH as the lead agency for public health workforce development in Colorado, and with the Colorado Public Health Alliance, a consortium of 10 Colorado public health professional organizations. Our general policy is to design and implement training for Colorado based on a consensus of needs by these three partners, and to implement training for the broader DHHS region VIII by consensus of partners in the other five states, including the University of Utah (taking the lead for regional needs assessment), the Montana AHEC system (taking the lead for regional AHECs), the Wyoming Institute of Population Health (taking the lead for regional critical access hospitals), and the Community Health Association of the Dakotas (taking the lead for regional community health clinics).

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### **EVALUATION OF WORKFORCE DEVELOPMENT ACTIVITIES**

Each training activity has an evaluation process wherein participants and instructors are surveyed for their feedback on the value of the training both in terms of content and method (standard HRSA methods). These evaluations are reviewed by CPHP staff and by the faculty to continually improve the trainings we offer. The HRSA Report can be found in Resource File 3.3.d(1). On an annual basis, the CPHP Board of Advisors (which

meets three times per year) reviews all training activities. The Rocky Mountain Public Health Training Center has also now established an advisory committee representing all six state health agencies. That committee is charged with providing qualitative input into the needs and reach of trainings, and advice to the RM-PHTC leadership on training goals, processes, and outcomes. The Program Outcome and Impact Report is available in Resource File 3.3.d(2).

### **3.3.E LIST OF OTHER EDUCATIONAL INSTITUTIONS OR PUBLIC HEALTH PRACTICE ORGANIZATIONS, IF ANY, WITH WHICH THE SCHOOL COLLABORATES TO OFFER CONTINUING EDUCATION**

In offering continuing education to the public, students, alumni and the broader university communities, ColoradoSPH collaborates with a large number of other educational institutions and public health practice organizations as summarized in Table 3.3.e.



TABLE 3.3.E KEY COLLABORATING ORGANIZATIONS WITH THE COLORADO SPH

Organization Type	Collaborating Organizations
<b>Schools within the ColoradoSPH</b>	CU Denver Schools of Medicine, Nursing, Dentistry, Public Affairs, Graduate Education, and Business; CU Boulder; CSU College of Veterinary Medicine and Biomedical Sciences
<b>Schools outside the ColoradoSPH</b>	University of Utah, University of Montana, University of South Dakota, University of North Dakota
<b>Public health organizations</b>	Colorado Department of Public Health and Environment, Colorado Association of Local Public Health Officials, local public health agencies ( Denver, Tri-county, Boulder, Jefferson County), Colorado Environmental Health Association, Colorado Public Health Alliance, Public Health Nurses Association of Colorado, Colorado Society for Public Health Education, Colorado Health Institute, Colorado Area Health Education Centers, Colorado Injury Control Research Center
<b>Foundations</b>	American Heart Association, Colorado Trust, Caring for Colorado, Colorado Health Foundation, Rose Community Foundation, Kaiser Foundation, Centura Health Foundation, Colorado Foundation for Families and Children, Colorado Foundation for Public Health and Environment
<b>Clinical organizations</b>	Colorado Rural Health Centers, ClinicNet, Colorado Community Health Network, Mental Health Center of Denver, Denver Health, National Jewish Medical Center
<b>Other organizations</b>	Center for African American Health, Stapleton 2040, Friendship Bridge, Rocky Mountain Survivors Center, Project Cure, Montview Boulevard Presbyterian Church, Metro Denver Health and Wellness Commission, Region 8 OSHA Training Institute, National Research Center, Inc., Health Professional for Social & Environmental Responsibility, Altitude Research Center, Physician Assistants for Global Health, Mortenson Center in Engineering for Developing Communities, Directors of Health Promotion and Education

### 3.3.F ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET

This criterion is met.

#### STRENGTHS

The ColoradoSPH offers a robust and popular certificate program that trains working professionals and scientists in public health and serves as a pipeline for the MPH program. Many continuing educational opportunities are conducted in collaboration with a large number of organizations. The Center for Public Health Practice is offering trainings regionally via the Rocky Mountain Public Health Training Center. The emerging ECHO program holds great promise for providing additional continuing education through learning communities in Colorado and HRSA Region VIII.

#### WEAKNESSES

HRSA funding supports only online learning. We are now developing better capacity to use bidirectional video conferencing to create active learning networks, using the ECHO training model. We have not yet capitalized

on our opportunities for winter and summer workforce development seminars, perhaps in the mountain resort areas of Colorado, which could also be revenue-generating.

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## PLANS

Resources are increasingly scarce for in-person trainings, yet learners are asking for more in-person training. With both HRSA resources (Rocky Mountain Public Health training Center) and gift funds from The Colorado Health Foundation (ECHO Colorado), we will design and launch several new efforts to emulate online the dynamics of classrooms using live bidirectional video groups. These learning communities will be topic-specific, and case-based, including both clinical medical topics but also population health topics, such as food safety, TB control, tobacco control, and obesity prevention. We believe this type of system will marry the high-touch advantages of in-person teaching with the convenience and relevance of in situ learning that is practical and case-based. We plan to have this in place by January 2017.



Each of our campuses and communities offers something different, and collectively they represent the best of Colorado's higher education and research.



## 4.0 FACULTY, STAFF, AND STUDENTS

### 4.1 FACULTY QUALIFICATIONS

#### 4.1.A TABLE SHOWING PRIMARY FACULTY WHO SUPPORT THE DEGREE PROGRAMS OFFERED BY THE SCHOOL

Table 4.1.a (Template 4.1.1) is presented in Resource File 4.1.a. ColoradoSPH has faculty at three universities (CU Anschutz, UNC and CSU) organized into five departments. There are a total of 134 primary faculty across the three campuses, with 67 at CU, 63 at CSU, and four at UNC. Table 4.1.a is organized by department, with sections for faculty at each university. Primary faculty are defined as those who are involved in the teaching of students in some capacity and are employed full-time at their university with a primary appointment in the School in one of the following faculty tracks: tenure track, research track, or clinical teaching track. Faculty at UNC and CSU hold primary appointments at their home university as well as appointments in the ColoradoSPH. These appointments in the ColoradoSPH are treated as primary appointments, though the University of Colorado uses the designation of adjunct for administrative purposes since these faculty are paid through their home universities rather than through the University of Colorado. Curriculum vitae are available in Resource File 4.1.

The information from Table 4.1.a is summarized in Table 4.1.a(1) below.

TABLE 4.1.A (1) SUMMARY OF FACULTY HEADCOUNT BY CAMPUS, RANK, TRACK, AND DEPARTMENT

	Biostatistics	Community and Behavioral Health	Environmental and Occupational Health	Epidemiology	Health Systems, Management and Policy
<b>Campus</b>					
CU	15	24	7	13	8
CSU	1	37	8	17	0
UNC	0	4	0	0	0
<b>Rank</b>					
Professor	6	22	4	13	3
Associate Professor	4	23	3	8	2
Assistant Professor	4	13	6	7	3
Instructor	2	7	2	2	0
<b>Track</b>					
Tenure	12	53	12	28	8
Research	4	4	1	1	0
Clinical Teaching	0	3	0	0	0
Non-tenure track (Instructors)	0	5	2	1	0
<b>Total Faculty</b>	<b>16</b>	<b>65</b>	<b>15</b>	<b>30</b>	<b>8</b>

#### 4.1.B IF THE SCHOOL USES OTHER FACULTY (ADJUNCT, PART-TIME, SECONDARY APPOINTMENTS, ETC.), SUMMARY DATA ON THEIR QUALIFICATIONS SHOULD BE PROVIDED IN TABLE FORMAT

ColoradoSPH has 207 faculty holding a variety of appointments not considered primary by the CEPH definition, including regular faculty who are employed less than full-time and involved in the teaching program (29), clinical (28), secondary (91), adjunct (42), and affiliate (17) faculty. Secondary appointments are given to those who have a primary appointment in another school at the University of Colorado. Most common among these are faculty with primary appointments in the CU School of Medicine (e.g., Pediatrics, Psychiatry, Emergency Medicine, etc.). Adjunct appointments are generally used for those faculty members who teach on a course-by-course basis and who are located at outside institutions or foundations. They are paid according to their teaching assignments. Clinical appointments are generally given to members of the public health professional workforce. They are involved in a variety of responsibilities such as research, teaching, or service activities. Depending on their tasks and responsibilities, these appointments can be paid (clinical) or unpaid (clinical volunteer). Faculty members who hold clinical or clinical volunteer positions come from a variety of institutions; they may or may not have an academic position (i.e., at a university); and their professional “homes” can be at health departments and agencies or hospital organizations. Examples include Denver Public Health, the Colorado Department of Public Health and Environment, National Jewish Health, Kaiser Permanente of Colorado, and the Denver Veteran’s Administration. As the School has evolved, there has been some shifting in the types of appointments given to faculty who are not in one of the regular tracks such as tenure track, research track, or clinical teaching track. Table 4.1.b(1) in Resource File 4.1.b(1) shows all faculty considered by the School to be primary, but who are employed less than full-time. Table 4.1.b(2)



(Template 4.1.2), showing all ColoradoSPH faculty with non-primary appointments, is provided in Resource File 4.1.b(2) Curriculum vitae are available in Resource File 4.1.

#### **4.1.C DESCRIPTION OF THE MANNER IN WHICH THE FACULTY COMPLEMENT INTEGRATES PERSPECTIVES FROM THE FIELD OF PRACTICE, INCLUDING INFORMATION ON APPOINTMENT TRACKS FOR PRACTITIONERS, IF USED BY THE SCHOOL. FACULTY WITH SIGNIFICANT PRACTICE EXPERIENCE OUTSIDE OF THAT WHICH IS TYPICALLY ASSOCIATED WITH AN ACADEMIC CAREER SHOULD ALSO BE IDENTIFIED**

Most faculty with adjunct or clinical appointments are from the public health practice community and represent a wealth of experience that enhances our teaching and research programs. For example, Lisa VanRaemdonk, an adjunct assistant professor in health systems, management and policy, is the executive director of the Colorado Association of Local Public Health Officials and Public Health Alliance. She co-teaches our foundations in public health course (PUBH 6600) each year and collaborates on research projects related to the public health workforce. Arthur Davidson is the director of public health informatics, epidemiology and preparedness at Denver Public Health, Denver Health. Dr. Davidson mentors students and is a standing member of the School's Education and Curriculum Committee, providing a practice-based perspective to the oversight of all curriculum matters. He also serves as chair of the General Preventive Medicine and Public Health Residency Program's Clinical Competency Committee. Several adjunct and clinical faculty members are in leadership positions at the Colorado Department of Public Health and Environment, including Dr. Wendy Bamberg (Healthcare-associated Infections Program director), Dr. Lisa Miller (branch chief, Communicable Disease Branch), Dr. Alyson Shupe (chief, Health Statistics and Evaluation Branch), Alicia Cronquist (foodborne/enteric disease epidemiologist), and Dr. Mike Van Dyke (branch chief, Environmental Epidemiology, Occupational Health, and Toxicology). Dr. Van Dyke teaches a course, and Dr. Miller recently completed a term on the advisory board for our General Preventive Medicine and Public Health Residency program. All serve as preceptors for student practicum experiences and capstones, and many have given seminars and grand rounds presentations at our three campuses.

Additionally, many tenure-track faculty had previous careers in practice prior to joining the School. Examples include Dr. Tim Byers, who was a physician in the Indian Health Service and worked at the Centers for Disease Control and Prevention; Dr. Carolyn DiGuseppi, who was science advisor and project director in the Office of Disease Prevention and Health Promotion, Office of the Assistant Secretary of Health, and senior health policy analyst in the Agency for Healthcare Research and Quality; Dr. Greg Tung, who was a hospital administrator; and Dr. Elaine Morrato, who worked in the pharmaceutical industry.

#### **4.1.D IDENTIFICATION OF MEASURABLE OBJECTIVES BY WHICH THE SCHOOL ASSESSES THE QUALIFICATIONS OF ITS FACULTY COMPLEMENT, ALONG WITH DATA REGARDING THE PERFORMANCE OF THE SCHOOL AGAINST THOSE MEASURES FOR EACH OF THE LAST THREE YEARS**

Measurable objectives for faculty qualifications include objectives related to recruitment and retention, promotion timeline, faculty development activities, and appointments and participation by those in the practice community. As shown in Table 4.1.d (below), we are generally performing at our target levels. Salaries for professors are below national median salaries. This estimate is based on a small sample, excluding professors with administrative leadership roles, and may be influenced by being composed of a relatively

recently promoted group of professors at our School compared to schools with a longer history (although we have no data to substantiate this speculation). In ColoradoSPH, decisions of tenure are separated from decisions of promotion to associate professor. Our goal is that 100% of professors will have received tenure and that 70% of associate professors will be tenured. We are below both of these targets. This is largely due to our tenure criteria (set by the CU Regents), which require excellence in teaching and/or research, while a fair number of our faculty are promoted with excellence in public health practice. Faculty who are promoted with excellence in public health practice, but not teaching or research, are by Regents rule not eligible for tenure. We have 53 adjunct/clinical faculty members who work in public health, outside the university, who teach and collaborate with the School.



TABLE 4.1.D MEASURABLE OUTCOMES RELATED TO QUALIFICATIONS OF FACULTY

Objective	Measure	Target	2012-2013	2013-2014	2014-2015
3.2 Recruit and retain faculty educators and researchers through the provision of resources, support, and recognition (CU Anschutz only)	Number of searches conducted	No Target	4	4	3
	Percent of offers accepted	>75%	75%	75%	100%
	Median salary support for faculty, by rank, equal to or above 2013 ASPPH median (public and private, non-physicians)	Assistant Professor \$96,322	\$97,803	\$96,445	\$97,799
		Associate Professor \$122,590	\$111,565	\$116,500	\$123,311
		Professor \$174,019	\$163,217	\$155,000	\$158,875
	Percent of faculty promoted to associate professor	85% in 7 years	67%	100%	100%
	Percent Professors in Tenure track who are tenured	100%	89%	90%	92%
	Percent Associate Professors in Tenure track who are tenured	70%	56%	50%	50%
	Annual retention rate of faculty	>90%	98%	95%	95%
	Number of faculty participating in leadership programs	5	9	9	8
5.1 Maintain strong connections to public health practice through involvement of public health practitioners in the School's activities	% of faculty participating in faculty development programs (e.g., teaching workshops)	10%	12%	12%	11%
	Number of clinical, adjunct, affiliate, and secondary appointments	No target	119	143	187
	Percent of clinical, adjunct, affiliate, and secondary faculty who work in public health practice	35%	44%	41%	38%
	Percent of School committees with community and workforce members	25%	33%	33%	33%

#### 4.1.E ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET AND AN ANALYSIS OF THE SCHOOL'S STRENGTHS, WEAKNESSES AND PLANS RELATING TO THIS CRITERION

This criterion is met.

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## **STRENGTHS**

ColoradoSPH has a large faculty that spans three universities and the five core areas of public health. All faculty engage in research or practice related to public health. The vast majority of faculty have terminal degrees (either DrPH, PhD, or MD). Annual retention is nearly 100%, with most faculty being in the tenure track and the majority at the rank of associate or full professor. Faculty are generally teaching and conducting research in the disciplines in which they were trained. More than 190 non-primary faculty (a third of which come from the public health practice community) complement the primary faculty through teaching, seminars, supervision of students, collaboration in projects, and participation in School committees.

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## **WEAKNESSES**

Over time, our definitions and application of the definitions for non-primary faculty have varied, such that there is considerable overlap in the types of roles that faculty with different appointment types (i.e., adjunct, affiliate, clinical) play in the School. While there is an expectation that non-primary faculty participate in School activities in some way, some are relatively absent and strengthening our connections with these faculty could bring benefits.

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## **PLANS**

We are clarifying appointment types for non-primary faculty, consistent with Regents' policy, and adjusting appointments as necessary. This process will be complete by December 2015. Departments have been encouraged to develop mechanisms to better integrate non-primary faculty with ColoradoSPH activities. This effort could enhance the relevance of the work we do and provide greater opportunities for enrichment of our educational programs with the practice perspective and for collaboration in research and public health practice projects.

## 4.2 FACULTY POLICIES AND PROCEDURES

### 4.2.A FACULTY HANDBOOK OR OTHER WRITTEN DOCUMENT THAT OUTLINES FACULTY RULES AND REGULATIONS

The CU Denver/Anschutz Faculty Handbook can be found at: <https://www.cu.edu/office-academic-affairs/faculty-handbook>. Topics covered in the handbook include:

- Introduction to the University
- Organization and Administration of the University
- Faculty Governance
- Faculty Titles
- Principles & Policies Related to Appointment, Reappointment, Promotion and Tenure
- Non-reappointment, Termination, Suspension, Dismissal, and Resignation
- Academic Principles, Professional Rights and Responsibilities, and Related Policies
- Compensation and Leave
- Retirement, Insurance, and Other Benefits

The ColoradoSPH Faculty Handbook can be found in Resource File 4.2.a(1) and at:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/Faculty/facultyaffairs/Documents/Faculty%20Handbook%2c%2010-22-2014.pdf>. Topics covered in the handbook include:

- Types of appointments
- Appointment principles and hiring, faculty expectations
- Performance evaluations, including mentorship, promotion and tenure reviews, post-tenure reviews, faculty review of adjunct, affiliated and secondary appointments and non-reappointments
- Promotion and tenure criteria, levels of review, schedule, and dossier guidelines
- Appendices including materials for the promotion dossier

The faculty workload model for ColoradoSPH faculty at the CU Anschutz can be found in Resource File 4.2.a(2).

Faculty policies for CSU are available in the CSU Academic Faculty and Administrative Professional Manual, Section e, available at: <http://facultycouncil.colostate.edu/files/manual/sectione.htm>.

Faculty rules and regulations for the UNC campus are located in the UNC Board Policy Manual ([http://www.unco.edu/trustees/Policy\\_Manual.pdf](http://www.unco.edu/trustees/Policy_Manual.pdf)) and UNC University Regulations ([http://www.unco.edu/trustees/University\\_Regulations.pdf](http://www.unco.edu/trustees/University_Regulations.pdf)) documents.

### 4.2.B DESCRIPTION OF PROVISIONS FOR FACULTY DEVELOPMENT, INCLUDING IDENTIFICATION OF SUPPORT FOR FACULTY CATEGORIES OTHER THAN REGULAR FULL-TIME APPOINTMENTS

As described above in Sections 1.3.c.3 and 1.5.b.5. and in accordance with the MOA, the home department within the partnering university has the primary responsibility for faculty development. There are also several aspects of faculty development supported by the School. These include mentoring of newly-hired faculty and

all junior faculty, annual evaluations, a formal mid-course review process, pilot and feasibility monies for research development, support of teaching improvements, and post-tenure review. These are described briefly here.

Upon hiring, faculty at the instructor and assistant professor rank are assigned a senior faculty mentor (or co-mentors) in consultation with the faculty member. Mentors meet on a regular basis with faculty members to guide, counsel, and mentor them in faculty and research processes over at least the first several years of their appointment. Department chairs (who are not the mentors) also meet regularly with each faculty member and provide annual evaluations of progress, and assist in setting goals for the next year. After three to four years in rank, assistant professors undergo a formal mid-course review by the Departmental Appointments, Promotions and Tenure Committee (DAPTCO). This review serves to identify areas of strength and weakness for development in the years leading up to promotion. Once awarded tenure, a formal post-tenure review process is initiated by the Chair every five years to ensure that continued growth and development are occurring.

In addition to these processes, there are several avenues for additional faculty support and development. Many of the School and university centers provide access to pilot and feasibility study monies (often competitively) for junior faculty research development in preparation for formal research proposals. These include the Colorado Clinical and Translational Sciences Institute (CCTSI), Mountain and Plains Education and Research Center (MAP ERC), nutrition and cancer centers, among others. School faculty who successfully competed for CCTSI awards in 2014 include G. Tung, K. Garrett, P. Valverde, K. Henry, and A. Brooks-Russell.

Departments have access to indirect cost recovery monies that can be used to support faculty development. Until recently, some departments made a fixed amount per faculty member available annually for meetings, books, and other development purposes. In addition, department faculty can apply for additional research development funds for pilot work or research support (instrumentation, student research assistance, computers, freezers, etc.). Faculty are supported to apply for K (career development) awards, and several have been successful including D. Glueck, N. Carlson, and K. Kechris from Biostatistics, and J. Leiferman from Community and Behavioral Health.

Under the direction of the associate dean for faculty and in conjunction with Faculty Senate, several programs have been or are being planned to assist faculty development. Plans are being finalized for peer review of teaching for both classroom and online courses. In January 2014, the School collaborated with CU Online to make available a week-long “Web Camp” for faculty and teaching assistants to learn and apply “Best Practices” in online education. Subsequently, a similar two-day workshop was offered in May 2015. Several “Best Practices” series are in the planning stages for the 2015-16 academic year, including online teaching, in-person teaching, promotion planning, mentoring (for both junior faculty and post-docs) and a series for graduate students on expectations as they become faculty. A best practices series for grant writing is planned and under the direction of the associate dean for research, a program for internal peer review of grants prior to submission. During the past three years this has been conducted on a departmental or faculty-to-faculty basis.

Several faculty members participate in campus-wide faculty development and leadership programs. The CCTSI sponsors the Leadership in Innovative Team Science (LITeS) program, with participation in 2012-2013 by three

ColoradoSPH faculty (J. Adgate, J. Norris, L. Crane), in 2013-14 by four faculty ( N. Carlson, T. Fingerlin, D. Goff, C. Runyan), and in 2014-15 by four faculty ( E. Belansky, D. Ghosh, K. Kechris, E. Morrato). CCTSI also offers training workshops in implementation science; several ColoradoSPH faculty participated in 2013-14 and 2014-15 (e.g., E. Belansky, C. DiGuseppi). Many ColoradoSPH faculty have participated in the University-wide Emerging Leaders Program (J. Adgate, A. Atherly, A. Baron, L. Crane, J. Hokanson, J. Norris). These programs focus on team building, personal and academic growth, and preparation for, or enhancement of, team leadership.

Non-primary faculty (adjunct, secondary, and clinical) are provided full access to the CU Health Sciences Library, and receive ad hoc orientation to university systems and teaching standards through their departments. These faculty are also invited to all-faculty meetings, which frequently include some type of faculty development opportunity, such as best practices for teaching, or workshops on research methods. Clinical, secondary and affiliated faculty of the Occupational and General Preventive Medicine and Public Health residency programs have participated in retreats and mini-workshops on education and evaluation.

#### **4.2.C DESCRIPTION OF FORMAL PROCEDURES FOR EVALUATING FACULTY COMPETENCE AND PERFORMANCE**

As described above in Sections 1.3.c.3 and 1.5.b.5 and in accordance with the MOA, the home department within the partnering university has the primary responsibility for faculty evaluation.

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### **CU ANSCHUTZ**

Several levels of faculty evaluation are in place or being developed. The following university-wide policies, as outlined in the Faculty Handbook, are in effect for the evaluation of all ColoradoSPH faculty at CU Anschutz:

Appointment and Evaluation

<https://www.cu.edu/regents/article-5-faculty>

Standards, Processes and Procedures for Appointment, Reappointment, Tenure and Promotion

<https://www.cu.edu/ope/policy/aps-1022-standards-processes-and-procedures-comprehensive-review-tenure-and-promotion>

Multiple Means of Teaching Evaluation

<https://www.cu.edu/ope/policy/aps-1009-multiple-means-teaching-evaluation>

The cornerstone for faculty evaluation is the annual performance review, conducted by the department chair, which includes evaluation of past performance and setting of three-year teaching, research and service goals for each person. This review also includes review of course teaching evaluations by the chair. A mid-course review is conducted for assistant professors in year 3 or 4, to prepare them for promotion. This is conducted by the Departmental Appointments and Promotions Committee (DAPTCO), with written feedback to the candidate, the candidate's mentor, and the department chair. The responsibility of making the initial recommendation for promotion or award of tenure of faculty members rests with department chairs. Each of the five department chairs is advised by his or her respective Departmental Appointments, Promotions and

Tenure Committees (DAPTCOs). Within ColoradoSPH, the ultimate responsibility for recommending faculty members for continuation, promotion, or award of tenure rests with the dean. The dean is advised by department chairs and the Appointments, Promotions and Tenure Committee (APT Committee).

Promotion is awarded based on meritorious and/or excellent performance and evidence of scholarship in the areas of teaching, research, public health/clinical practice, and service as described within Section F of the ColoradoSPH Bylaws. These criteria are in compliance with the University of Colorado Regents criteria.

Appendix D, an appendix of the ColoradoSPH bylaws, found in Resource File 4.2.c. and at

<http://www.ucdenver.edu/academics/colleges/PublicHealth/Faculty/facultyaffairs/Documents/Resources/Examplesofmeritoriousandexcellentsperformance.pdf>, provides detailed, though not exhaustive, examples of meritorious and excellent performance as well as how to identify evidence of scholarship in each of the areas noted here. Resource file 1.3.c.4 includes the bylaws, which can also be found at <http://www.ucdenver.edu/academics/colleges/PublicHealth/Faculty/resources/Documents/CSPHBylaws2012.pdf>

Tenure-track faculty who are employees of the University of Colorado in the academic ranks of associate professor or professor are eligible for consideration for an award of tenure. Tenure-track faculty members may be, but are not required to be, considered for the award of tenure at the same time as they are being considered for promotion to associate professor or full professor. Consideration for promotion and the award of tenure are separate processes. There is no maximum time limit for the award of tenure; however, the faculty member who is turned down for tenure at the level of the dean may not be reconsidered for three years. Given that CU Denver/Anschutz is a public institution and a recipient of public funds, tenure is broadly viewed as an important tool granted by the public whereby the university may work to advance the social good through extending the frontiers of knowledge and transmitting that knowledge to students, to the community of scientists and scholars, and to the public. More specifically, tenure is viewed as an essential element in the guarantee of academic freedom, which is required to meet the School's mission. All candidates for an award of tenure in the School will have demonstrated significant accomplishments in scholarly endeavor, which is synonymous with the generation of new knowledge.

Evaluation of faculty in administrative positions, including the dean, associate deans, assistant deans, and department chairs, is conducted annually during the performance review process. The dean is evaluated by the CU Denver/Anschutz provost and the CU Anschutz chancellor, and the dean evaluates the School's associate deans, assistant deans, and chairs. The process includes a discussion of activities, update of the CV, and informal feedback from colleagues. The university requires a written evaluation and public summary of the overall evaluation, following the administrative policy statement, "University of Colorado Performance Management Program," amended May 2009

(<http://www.ucdenver.edu/about/departments/HR/FormsTemplatesProcesses/Documents/Word/PerformanceManagementProgram-Final7-2009.pdf>).

Within ColoradoSPH, the responsibility for development and implementation of policies and procedures relevant to the faculty rests with the associate dean for faculty. These policies and procedures are included in the Faculty Handbook (Resource File 4.2.a(1)), which is available to all faculty members online at:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/Faculty/facultyaffairs/Documents/Faculty%20Handbook,%202010-22-2014.pdf>

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## COLORADO STATE UNIVERSITY

CSU faculty members are evaluated annually by their primary institution, and promotion and tenure also are governed by the primary institution. Evaluation policies can be found at:

<http://www.facultycouncil.colostate.edu/files/manual/sectione.htm#E.14>

Faculty reviews include annual reviews, comprehensive reviews of tenure-track faculty members, and comprehensive reviews of tenured faculty members. Annual reviews are typically for the purpose of evaluation for merit salary increases, for providing assistance to faculty members to improve their performance when needed, and for the early identification and correction of perceived weaknesses and deficiencies in performance. A comprehensive performance review of each tenure-track faculty member is conducted by the midpoint of his or her probationary period at CSU to assess whether the faculty member is making satisfactory progress toward tenure and promotion.

Faculty membership in the Graduate Degree Program in Public Health (GDPPH) at CSU is a privilege and carries with it the responsibility for active participation in events and activities of the program, which are described in the MOU (listed below). Thus, the GDPPH Executive Committee reviews participation of faculty at least every three years and makes recommendations to the CSU director as to the continuation of each member within the GDPPH. If the Executive Committee does not vote in the majority to continue a member due to lack of participation, the director notifies the member, who is given the option to continue for one additional year of membership on a probationary status in order to improve participation. The Executive Committee then reviews participation of the member after one year and recommends to the director the continuation or termination from the GDPPH. Termination from the program does not require a vote of the membership in the GDPPH program.

Responsibilities of membership in the Graduate Degree Program in Public Health at CSU:

- Mentor CSU MPH graduate students
- Participate in CSU MPH graduate courses
- Sustain active participation in GDPPH activities including attendance at seminars, faculty meetings and a willingness to accept assignments on appropriate committees
- Sustain active participation in ColoradoSPH activities including attendance at seminars, faculty meetings and a willingness to accept assignments on appropriate committees
- Maintain a program of research scholarship in public health

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## UNIVERSITY OF NORTHERN COLORADO

UNC faculty are evaluated annually by their primary institution, and promotion and tenure also are governed by the primary institution. Evaluation policies can be found at:

[http://www.unco.edu/trustees/Policy\\_Manual.pdf](http://www.unco.edu/trustees/Policy_Manual.pdf) (Section 2-3-801)

Faculty members are evaluated according to the UNC board-approved constitution and procedures. Tenure-track faculty members complete an annual evaluation as part of the promotion and tenure process. This

evaluation is completed by the Faculty Evaluation Committee, which is made up of faculty from within the UNC School of Human Sciences, and the School of Human Sciences director. Non-tenured faculty receive annual scores and feedback from the Faculty Evaluation Committee and School of Human Sciences director.

Tenured faculty complete a biennial evaluation that is scored by the UNC Faculty Evaluation Committee and School of Human Sciences director.

The UNC College of Natural and Health Sciences policies and procedures for faculty evaluation and performance contains specific information about promotion and tenure (<http://www.unco.edu/nhs/pdf/FacEvalDocApril2013.pdf>).

#### **4.2.D DESCRIPTION OF PROCESSES USED FOR STUDENT COURSE EVALUATION AND EVALUATION OF TEACHING EFFECTIVENESS**

Student evaluations of courses provide important feedback to assess program and School performance. All ColoradoSPH courses are evaluated using an online course evaluation system managed by the CU Denver Educational Support Services (ESS). A standardized evaluation form is used for all courses, which includes both quantitative ratings (typically using Likert-type scales) and the opportunity to provide qualitative feedback about the instructor and course. The form is provided in Resource File 1.2.b(1). The system automatically generates reports from the anonymous results for each course. This evaluation system is used for in-person, hybrid, and online courses. For courses offered at CSU and UNC, students evaluate the course twice, once through the system at UNC or CSU (as relevant) and once through the CU system. Response rates for course evaluations at ColoradoSPH are generally between 60-80%. Response rates are usually lower for UNC and CSU courses, where students are asked to complete two sets of course evaluations. Summaries of course evaluations are in resource file 1.2.b(2).

Results are available to each course instructor, department chairs, the associate dean for academic affairs, and the dean of the School. Course evaluations are reviewed by the department chair during the annual faculty review cycle and discussed with the faculty member. If there are concerns raised by the evaluations, the associate dean and chair confer to devise a plan to make course changes, identify teaching improvement activities for the faculty member, provide additional peer review of the course content and delivery, or all three. Progress is reviewed on an interim basis as appropriate.

#### **4.2.E ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met with commentary.

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#### **STRENGTHS**

Policies and procedures related to evaluation of faculty performance and competence are documented and well established at the universities and School/department levels. All courses are evaluated by students using a systematic approach. Faculty development opportunities are available.



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## **WEAKNESSES**

Faculty participation in career development activities is lower than desired. At the School level, we do not have a peer-evaluation in place for teaching. However one department, Environmental and Occupation Health, has recently initiated an annual peer review process for junior faculty. The duplication of course evaluations at UNC and CSU has resulted in lower than desired response rates.

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## **PLANS**

Our strategic plan includes several goals related to the offering of faculty development activities, as well as a goal to develop and implement a peer evaluation system of teaching. A plan has been drafted to provide more faculty development programming in the areas of teaching and research, including a proposal for peer evaluation of teaching. The newly appointed associate dean for faculty (C. DiGuseppi) will lead the evaluation and further development of this plan during the 2015-16 year and we anticipate that implementation will begin in fall 2016. We are currently exploring the possibility of moving to a single course evaluation system for CU Anschutz, UNC and CSU courses.



## 4.3 STUDENT RECRUITMENT AND ADMISSIONS

### 4.3.A DESCRIPTION OF THE SCHOOL'S RECRUITMENT POLICIES AND PROCEDURES

In 2015, the School developed and implemented a recruitment plan (Resource File 4.3.a). The recruitment plan details objectives and strategies to meet four recruitment goals:

- Promote diversity within the student body
- Meet program and school enrollment targets
- Develop and sustain lasting recruitment streams
- Develop and coordinate systems across programs and campuses

The plan uses a multifaceted approach to recruitment and marketing based on: (1) partnerships and communications, (2) knowledge and accessibility, (3) dissemination and tracking, and (4) coordinated systems and structures.

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#### 4.3.A.1 PARTNERSHIPS AND COMMUNICATIONS

The School invests time and resources into building strong partnerships with universities, health agencies and public health and educational organizations in order to support recruitment of a diverse applicant pool. Diversity is broadly defined here to include variety in social, cultural, ethnic, geographic, educational, and experiential backgrounds. Current partnerships supporting recruitment include work with university offices of diversity, regional McNair/Trio programs, and pipeline programs for local middle and high school students. Other initiatives include:

- Regular School and program communications are sent to faculty and advisers at accredited universities and colleges in the Rocky Mountain region.
- Recruitment events, fairs and information sessions held regularly at the School's three partner campuses. Specific recruitment events off-campus include: UC Davis Pre-Health Fair, ASPPH Recruitment Fairs, and Pre-Health events at various local colleges and universities.
- Pipeline programs with ColoradoSPH participation or sponsorship, including development of a SACNAS Chapter (Society for Advancement of Chicanos/Hispanics and Native Americans in Science), Colorado Health Professions through Area Health Education Centers (AHEC), and outreach to Health Science High Schools and Middle Schools. The school participates by sending faculty, current students, and staff.

Additional efforts focusing on building a diverse student body are detailed in section 1.8, Diversity.

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#### 4.3.A.2 ACCESSIBILITY

The School is committed to increasing accessibility of our graduate programs through scholarships, fellowships and tuition support. Newly admitted students are eligible for funding support through the School's Moran Endowed Scholarship, Albino Scholarship, and the Hoffman Health Disparities Fellowship. These scholarships are directly targeted for recruitment of highly qualified students.

For out-of-state students, the School provides a limited number of scholarships to reduce the cost of tuition to near in-state costs for the first year of study, after which students who become Colorado residents will qualify for in-state tuition rates. These are merit scholarships, targeted for the most qualified out-of-state applicants.

Several local employers provide tuition support benefits for their employees, including state and local health departments, and Kaiser Permanente of Colorado. ColoradoSPH works to facilitate enrollment of students from these organizations. The School's programs also are listed with the Western Interstate Commission for Higher Education (WICHE), which allows students from participating western states (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, Wyoming, and the Commonwealth of the Northern Mariana Islands) access to our public health programs at or near in-state tuition rates.

CU Denver/Anschutz, CSU and UNC each provide resources to faculty members to help them work more effectively with diverse classrooms, and encourage adaptive strategies to reach all types of learners. Some of these resources include:

- The Access Project at the Colorado State University: <http://accessproject.colostate.edu/>
- Universal Design for Learning at University of Northern Colorado: <http://www.unco.edu/cetl/UDL/>
- Teaching Diverse Students at the University of Colorado Denver/Anschutz: [http://www.ucdenver.edu/faculty\\_staff/faculty/center-for-faculty-development/teaching/Pages/DiverseStudents.aspx](http://www.ucdenver.edu/faculty_staff/faculty/center-for-faculty-development/teaching/Pages/DiverseStudents.aspx)

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#### 4.3.A.3 DISSEMINATION AND TRACKING

The School's Office of Student Affairs coordinates recruitment and admissions efforts in cooperation with staff across the three partner campuses. The School's primary phone line, central email accounts, and online inquiry response system funnel prospective students and outside inquiries to the Office of Student Affairs' enrollment management team for response and engagement.

ColoradoSPH promotes its programs through a multichannel marketing effort consisting of print and web publications, email and social media marketing, web-based retargeting (advertisements based on geographical location) and search advertising (Google ads based on specific phrase or keyword searches). Dissemination and tracking of marketing materials are managed by the enrollment marketing and communications specialist (C. Harris).

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#### PRINT & EMAIL MARKETING

Please refer to section 4.3.c.1 for a detailed overview of ColoradoSPH's print and email marketing efforts.

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## RETARGETED ADVERTISEMENTS

ColoradoSPH has two active retargeted advertisements, both managed by the enrollment marketing & communications specialist: one through the American Public Health Association (APHA) and one through the Association of Schools & Programs of Public Health (ASPPH).

The first advertisement, run through APHA, is active year-round, and its content changes over the course of the year to reflect the stages of our admissions cycle. When applications are open between September and May, the ad encourages prospective students to apply. From June to August, when the application cycle is inactive, it invites prospective students to visit the ColoradoSPH website for more information about the School.

The second advertisement, run through ASPPH, is active from December to May, and calls for prospective students to apply to the School. As of February 2015, ads on the ASPPH website had generated 200,000 impressions, and 264 clicks, for a conversion rate (clicks divided by impressions) of .13%. The original benchmark goal for this campaign was 150,000 impressions, 150 clicks, for a conversion rate of .10%; this retargeted advertisement is currently performing above expectations.

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## SEARCH ADVERTISING – GOOGLE ADS

ColoradoSPH has run six unique ads through Google Adwords (Resource File 4.3.a.3). One of these is an ongoing, year-round campaign, and the remaining five have been short-term, single-run ads. The year-long ad, which promotes the School's MPH program, has produced consistent engagement. Since its launch in January of 2014, it generated 341,679 impressions, 991 clicks, and a conversion rate of .29% as of February 2015. The short-term ads run for five months each, and were designed to promote individual programs and/or concentrations. The benchmark goal for each of these ads was 100,000 impressions, 150 clicks, and a conversion rate of .15%. These ads ran parallel to each other from mid-October until January 15, 2015. Provided below is overview of the subject and performance of each ad:

- Colorado State University MPH in Health Communication - 159,777 impressions, 174 clicks, 0.11% conversion rate
- Department & programs in Environmental & Occupational Health - 530,177 impressions, 1,989 clicks, 0.38% conversion rate
- Online MPH in Leadership and Public Health Practice - 67,640 impressions, 88 clicks, 0.13% conversion rate
- Certificate and degree programs at the University of Northern Colorado - 219,272 impressions, 246 clicks, 0.11% conversion rate
- University of Colorado South Denver Campus - 195,591 impressions, 124 clicks, 0.06% conversion rate.

Ad performance varied by content and type, but, overall, ads performed at or above the benchmarks (with the exception of the CU South Denver ads.) We intend to renew these advertisements, with the exception of the ad for the CU South Denver Campus, in the upcoming recruitment cycle.

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## WEBSITE

In the 2014 fiscal year, the ColoradoSPH website received approximately 130,000 total new website visitors (a 5.3% increase from 2013), 709,000 unique page views (a 6.1% increase from 2013), and an average time on-site of 00:01:18 (a 5.4% increase from 2013). The majority of visitors access the site from a desktop or other personal computer (92.6%), and the rest through mobile (3.8%) and tablet (3.6%) devices. Site usage is tracked using Google Analytics.

### 4.3.B STATEMENT OF ADMISSIONS POLICIES AND PROCEDURES

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#### 4.3.B.1 PROFESSIONAL PROGRAM ADMISSIONS (CERTIFICATE, MPH, DRPH)

All applications are received, distributed for review, and tracked throughout the admission and enrollment processes by the Office of Student Affairs.

Prospective MPH and DrPH applicants submit applications and supporting materials through the Centralized Application Service for Public Health (SOPHAS). Supporting application materials include: official transcripts from previously attended institutions, letters of recommendation, test scores, a statement of interest, and a curriculum vitae or resume. There is one review cycle per year for MPH and DrPH programs. MPH programs have a preferred application deadline of January 15, followed by rolling admissions until May 1. DrPH programs have a hard deadline of January 15. Accepted students are matriculated the summer or fall term.

Prospective certificate students apply using an abbreviated SOPHAS application, called “SOPHAS Express.” Certificate applicants submit all supporting application materials to SOPHAS with the exception of official transcripts, which are submitted directly to the Office of Student Affairs. The Office of Student Affairs tracks receipt of transcripts and notifies applicants of their application status. There are two review cycles per year for certificate programs, and students can be formally matriculated in either the spring or summer term.

For the two residency programs (General Preventive Medicine and Public Health Residency and Occupational Medicine Residency), the Office of Student Affairs administers the application process through ERAS (Electronic Residency Application Service) and works with the residency program directors to facilitate review of applications and interviews. Requirements for supporting application materials submitted through ERAS are similar to the requirements for the MPH and DrPH applications.

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#### 4.3.B.2 PROCESS FOR MPH, DRPH APPLICATIONS

The Office of Student Affairs meets with representatives from each department in advance of the application cycle to review admissions criteria and to orient any new reviewers to the mechanics and substance of the holistic review process. Department administrators and faculty reviewers are provided a scoring rubric as a guideline for reviewing applications (Resource File 4.3.b.2). On request from a department or program, the Office of Student Affairs will conduct an initial “triage” of each application to help determine the requisite number of reviewers for that application. The triage criteria are outlined in Table 4.3.b.2.

TABLE 4.3.B.2 CRITERIA FOR OFFICE OF STUDENT AFFAIRS APPLICATION TRIAGE

TRIAGE GROUP	Undergrad GPA		GRE		CERT or GRAD GPA
Group 1	3.5-4.0	AND	>/=60% both Verbal/Quantitative or MCAT >/=27	OR	>/=3.5 Earned MD or JD
Group 2	3.0-3.49	AND/OR	</=50%-59% on 1 or both Verbal/Quantitative MCAT=24- 26	OR	3.0-3.49
Group 3	<3.0	AND/OR	<50% on 1 or both Verbal/Quantitative MCAT<24	OR	<3.0

Departmental admissions committees are appointed by the chair of each program, or their assigned designee. The Office of Student Affairs distributes applications via SOPHAS to the respective department administrators who, in turn, assign applications to faculty reviewers on their department's admissions committee. MPH applications in triage groups one or three are assigned one faculty reviewer, and MPH applications in triage group two have two reviewers, unless a different procedure is approved by the department chair. MPH applications for the concentrations housed at CSU and UNC are not given triage ratings. Rather, these applications are reviewed in full by their departmental admissions committees once the files are complete and ready for review. All applications denied admission by departmental admissions committees are reviewed by the associate dean for student affairs before notice of denial is submitted to the applicant.

DrPH applicants are not triaged in SOPHAS. After the application deadline of January 15th, the DrPH departmental admissions committee, consisting of the department chair and two or more faculty reviewers, meets to begin initial review of all applications. The departmental admissions committee determines the strongest applicants based on the quality of application and an assessment of "fit" with faculty expertise in the program and the availability of strong mentorship. These applicants are invited for an interview. Applicants not considered for an interview are denied admission into the program. After the interview round is complete, final admission decisions are made by departmental admissions committees.

Admissions decisions for certificate programs, which are not housed in any one department, are made by the associate dean for student affairs, using criteria set by the Admissions Committee. Admissions decisions for dual-degree applicants are made independently through each academic program/school to which the student is applying. If a dual-degree applicant selects a concentration, that student's application is reviewed within the appropriate department with all other MPH applications. If a dual-degree student elects to complete a "custom" concentration, an option open to dual-degree students only, their application is reviewed by the associate dean for academic affairs.

In SOPHAS, reviewers enter a score for each applicant based on the scoring rubric (Resource File 4.3.b.2). Once the scores are entered in SOPHAS, the reviewer selects a decision for the application. The possible decisions for the MPH are: 1) accept, 2) accept with provision, 3) deny, but recommend certificate program, and 4) deny. If the applicant has specified a second choice program in another department, reviewers can refer denied applicants to their second choice department committee.

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#### **4.3.B.3 ACADEMIC DEGREE ADMISSIONS (MS AND PHD PROGRAMS)**

Academic programs (MS and PhD) are governed and administered by the CU Denver/Anschutz Graduate School: <http://www.ucdenver.edu/academics/colleges/Graduate-School/current/Pages/resources.aspx>

Admission policies of the Graduate School are outlined in Article II, Section 2 of the Rules of the Graduate School: <http://www.ucdenver.edu/academics/colleges/Graduate-School/Documents/pdf/Consolidated-Rules.pdf>

After the final deadline of February 1st, the academic degree departmental admissions committees meet to start the initial review of all applications received. The academic degree departmental admissions committee determines which applicants they would like to move forward into the interview round for both the MS and PhD programs. For the PhD programs, the strongest applicants, based on application quality and an assessment of “fit” with faculty expertise in the program and the availability of strong mentorship, are invited for an interview. After the interview round is complete, final admission decisions are made. After an admissions decision is made by ColoradoSPH, the Graduate School performs administrative functions such as verification of transcripts and GPA, background checks, etc. Graduate School acceptance criteria include an accredited baccalaureate or master’s degree, an acceptable GPA, letters of recommendation, a personal statement, and the GRE or other similar examination, or a waiver. International students are subject to further requirements and documentation. Individual programs may impose additional or more stringent admission requirements (e.g., specific prior coursework, minimum GPA or GRE scores), as specified in program rules.

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#### **4.3.B.4 ACADEMIC DEGREE ADMISSIONS COMMITTEE COMPOSITION**

One combined Admissions Committee exists for the MS and PhD programs in Biostatistics. The committee consists of the program director(s) and at least two other faculty members from the Biostatistics faculty.

The Admissions Committee for the MS and PhD in Epidemiology consists of the program director and at least two faculty members from the Epidemiology core faculty.

The Admissions Committee for the MS HSR consists of the department chair of Health Systems, Management and Policy and core faculty from the department.

The Clinical Sciences Executive Committee and at least two faculty members from the Health Systems, Management and Policy core faculty review applications for the HSR PhD.

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#### **4.3.B.5 ACADEMIC DEGREE ADMISSIONS SUMMARY OF TIMING AND PROCESS**

Application deadlines vary by academic program, but typically fall on either January 15 or February 1, with review complete by early March. Prospective students apply to ColoradoSPH programs through SOPHAS (the centralized application service for public health), maintained by WebAdmit. Applicants submit all application materials to SOPHAS including all official transcripts, letters of recommendation, test scores, a statement of interest and curriculum vitae or resume. Table 4.3.b.5 provides a summary of the criteria for application review and evaluation including readiness for graduate studies, past academic performance, letters of recommendation, and personal statements/experience. Academic degree policies and procedures are in Resource File 4.3.b.5.



TABLE 4.3.B.5 MATRIX OF ADMISSIONS REQUIREMENTS AND APPLICATION REVIEW CRITERIA FOR COLORADO SPH EDUCATIONAL PROGRAMS

Application/Admission Requirement	MPH	DrPH	MS (BIOS, EPID, HSR)	PhD (BIOS, EPID, HSR)	Certificate
U.S. Students					
BA/BS Grade Point Average (Preferred Grade Point Average)	3.0	3.0 (3.2)	3.0 (3.2)	3.0 (3.2)	3.0
Master's degree MPH, Biostatistics, Math Other sciences	N/A	Y	N/A	Y	N/A
Transcripts	Y	Y	Y	Y	Y
Graduate Record Exam (GRE) <sup>1</sup>	Y	Y	Y (650+Quant)	Y (700+ Quant)	N/A
Letter of Recommendation #	3	3	4	4	1
Personal Statement	Y	Y	Y	Y	Y
Foreign Students					
TOEFL	Y	Y	Y	Y	Y
GRE requirement	Y	Y	Y	Y	N/A
<sup>1</sup> Acceptable substitutions include other graduate examinations, e.g. MCAT, and for the MPH, exemplary performance in a ColoradoSPH Certificate program.					

## 4.3.C EXAMPLES OF RECRUITMENT MATERIALS, PUBLICATIONS, AND ADVERTISING THAT DESCRIBE ACADEMIC CALENDARS, GRADING, THE ACADEMIC OFFERINGS OF THE SCHOOL AND OTHER SCHOOL INFORMATION

### 4.3.C.1 RECRUITMENT MATERIALS

#### PRINT PUBLICATIONS

Print publications for recruitment in the form of one-sheet information flyers (Resource File 4.3.c.1(1)) provide general information to prospective students, including a basic overview of the School; admissions requirements and application deadlines; academic degree and program offerings and curricula; and faculty research. These publications encourage students to engage further by visiting the ColoradoSPH website for more information and connecting with ColoradoSPH on its social media channels.

#### EMAIL MARKETING

The Office of Student Affairs has built robust, automated email communications flows that deliver key points of information and promote continued engagement with prospective students at each stage of the admissions process: initial inquiry, application, admission, and enrollment/matriculation (Resource File 4.3.c.1(2)).

## PROSPECTIVE STUDENT COMMUNICATIONS FLOW

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The “prospective student” communications flow was designed to provide general information about the School to prospective students over a 6-month cycle, starting in August with the opening of the SOPHAS Application and ending with the January 15 preferred application deadline. Students enter into the communications flow when they request more information on the School’s website, interact with an employee at a virtual or on-the-ground recruitment event, or if their information is purchased through the GRE ([Educational Testing Service](#)). Email content is divided into the following topics:

- An overview of the three school collaboration
- An overview of each concentration area
- Two calls-to-action to attend information sessions or schedule campus tours
- An overview of affordability/cost of attendance
- The return on investment (ROI) associated with a ColoradoSPH degree
- Three calls-to-action to apply

As of March 27, 2015, the prospective student communications flow had a total of 3,315 contacts. Of those who received the School’s emails, 2,192 (68.71%) opened and read the content and 423 (13.26%) interacted (clicked through to receive more information) with the links.

## APPLICATION COMPLETE – DECISION NOT RELEASED COMMUNICATIONS FLOW

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The “application complete – decision not released” communications flow is designed to provide information to the applicants while they are waiting for their decision to be released. This communication flow has a maximum lifecycle of four months. It is initiated when the application is complete, including all supplemental materials, and stopped when the student’s admission status is finalized and released. The content is designed to encourage applicants to begin interacting with our students, staff, and faculty. Provided below is a brief overview of each email sent to students:

- Thank you for completing your application
- Two newsletters detailing campus events
- Two calls-to-action to attend Admitted Student Day events
- An email from the School’s student councils offering the student perspective
- A reminder of approaching decision release

As of March 27, 2015, the “Application Complete – Decision Not Released” Communications Flow had a total of 635 contacts. Of the 599 (94%) who received the emails, 527 (88%) opened and read the content and 193 (32%) interacted (clicked through to receive more information) with the links.

Students who are admitted to the School are automatically moved into the “admitted student – decision released” communications flow. Those who are denied are removed from all ColoradoSPH communication lists.

## ADMITTED STUDENT – DECISION RELEASED COMMUNICATIONS FLOW

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The “admitted student – decision released” communications flow was designed to create a feeling of inclusion in the ColoradoSPH community, and to encourage the applicant to become a student. The lifecycle of this communications flow is two months, starting when an applicant receives confirmation that they have been admitted to the school, and ending after the summer matriculation deadline. Email content includes:

- A welcome message from the Dean of the School and the Associate Dean for Student Affairs
- Two invitations to the spring Admitted Student Visit Day
- A joint welcome message from all three student councils with invitation to join them on social media
- Important resources to facilitate the matriculation/enrollment process (e.g., forms, deadlines)
- Valuable information for transitioning to Denver, Ft. Collins, and Greeley (e.g., housing, transportation)
- Two reminders of the approaching matriculation deadline

As of March 27, 2015, the “admitted student – decision released” communications flow was in the middle of its lifecycle, with 410 total contacts. Of these contacts, 374 (91%) had opened and read the content and 68 (17%) interacted (clicked through to receive more information) with the links.

Students who accept their offer of admission are automatically moved to the “matriculated student” communications flow. Students who decline their offer of admission are removed from all ColoradoSPH communication lists.

## MATRICULATED STUDENT COMMUNICATIONS FLOW

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As of March 27, 2015 the “matriculated student” communications flow was still in development. This communications flow is projected to have a life cycle of four months, starting when the admitted student accepts their offer of admission and ending prior to New Student Orientation in August. Content will include:

- A deposit notification/acknowledgement of enrollment
- An overview of organizational structure
- An overview of student life on all three campuses
- Three orientation “save the date” reminders
- A fall semester “cheat sheet” of deadlines

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### 4.3.C.2 ACADEMIC CALENDAR & GRADING

The School’s academic calendar includes the calendars from all three partner institutions (Resource File 4.3.c.2(1)) and can be found at:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Pages/academiccalendar.aspx>

Dates and times have been consolidated to accommodate the administrative systems of the University of Colorado Anschutz Medical Campus, including: course registration, add/drop deadlines, and graduation application deadlines. Course grades are recorded centrally at the CU Denver/Anschutz Registrar’s Office and the grading system across all campuses conforms to the CU system. Information on how grades are assigned

is available in the student handbook for each program. Handbooks for all programs are available in Resource File 4.3.c.2(2) and online at:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/degreesandprograms/Pages/index.aspx>

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#### **4.3.C.3 COURSE OFFERINGS**

Courses offered at each of the three partner universities are consolidated into a single course book. The course book is available in Resource File 4.3.c.3(1) and at:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/Documents/2015-2016%20CSPH%20Course%20Book.pdf>. Course syllabi are available in Resource File 4.3.c.3(2).

Course schedules for the prior three years are available in Resource File 4.3.c.3(3).

#### **4.3.D QUANTITATIVE INFORMATION ON THE NUMBER OF APPLICANTS, ACCEPTANCES AND ENROLLMENT, BY CONCENTRATION, FOR EACH DEGREE, FOR EACH OF THE LAST THREE YEARS**

Quantitative information on all programs, including applicants, acceptances, and enrollments for the past three years is found in Table 4.3.d(1) through Table 4.3.d(4).

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#### **4.3.D.1 SUMMARY OF MPH APPLICANT POOL AND OUTCOMES**

The 2014-2015 data include the addition of six Global Public Health MPH tracks, an online Leadership and Public Health track, and a new dual Doctor of Nursing Practice (DNP)/MPH program.

In part because we are still a relatively new school, our overall applicant pool for the MPH has continued to rise through the application period for 2014-15 matriculation. Our overall acceptance rates range from 65-75%, and our enrollment rate among those accepted is between 30-40%. UNC has seen a decline in applications and consequently a decline in enrollment. Additional efforts have been put towards recruitment at UNC to address this trend. Most concentrations have been fairly consistent over time on these measures. One exception is the Global Health and Health Disparities concentration at CSU, which has seen an increase in enrollment over time. The adding of “Global Public Health Plus” options for the core concentrations at CU Anschutz in 2014-15 appears to have resulted in shifting of enrollment from some of the core concentrations to the “core plus global” concentrations, rather than increasing overall enrollment to the MPH. However, other concentrations saw increases in overall enrollment with these options. Enrollment rates after acceptance are generally lower for the “Global Public Health Plus” options compared to the core concentrations. When asked, students who decline admission to ColoradoSPH tend to report that they are planning to attend Oregon State University, George Washington University, University of Pittsburgh, Boston University, or University of Albany SUNY.

TABLE 4.3.D(1) (TEMPLATE 4.3.1) APPLICATIONS, ACCEPTANCES AND ENROLLMENTS FOR MPH PROGRAMS FALL 2015 DATA TO BE PRESENTED AT SITE VISIT

MPH Total (All Campuses)		2013-2014		2014-2015		Fall 2015	
		n	%	n	%	n	%
	Applied	665	100%	800	100%		
	Accepted	503	76%	570	67%		
	Enrolled	164	33%	190	39%		

CU Anschutz Total		2013-2014		2014-2015		Fall 2015	
		n	%	n	%		
	Applied	388	100%	553	100%		
	Accepted	318	82%	411	80%		
	Enrolled	112	35%	128	31%		
Applied Biostatistics	Applied	21	5%	26	5%		
	Accepted	14	67%	22	85%		
	Enrolled	8	57%	8	36%		
Community & Behavioral Health	Applied	108	28%	101	18 %		
	Accepted	94	87%	88	87 %		
	Enrolled	28	30%	33	38%		
Global Public Health plus Community and Behavioral Health	Applied	n/a	n/a	39	7%		
	Accepted	n/a	n/a	32	82%		
	Enrolled	n/a	n/a	6	19%		
Environmental & Occupational Health	Applied	23	6%	36	7%		
	Accepted	21	91%	24	67%		
	Enrolled	7	33%	4	17%		
Global Public Health plus Environmental and Occupational Health	Applied	n/a	n/a	14	3%		
	Accepted	n/a	n/a	10	71%		
	Enrolled	n/a	n/a	3	30%		
Epidemiology	Applied	98	25%	115	21%		
	Accepted	77	79%	84	73%		
	Enrolled	35	45%	31	37%		
Global Public Health plus Epidemiology	Applied	n/a	n/a	54	11%		
	Accepted	n/a	n/a	38	70%		
	Enrolled	n/a	n/a	9	24%		
Health Systems, Management & Policy	Applied	94	24%	61	11%		
	Accepted	81	86%	34	56%		
	Enrolled	21	26%	13	38%		
Global Public Health plus Health Systems, Management & Policy	Applied	n/a	n/a	36	7%		
	Accepted	n/a	n/a	34	94%		
	Enrolled	n/a	n/a	8	24 %		
Health Systems & Management	Applied	n/a	n/a	n/a	n/a		
	Accepted	n/a	n/a	n/a	n/a		
	Enrolled	n/a	n/a	n/a	n/a		

CU Anschutz Total		2013-2014		2014-2015		Fall 2015	
		n	%	n	%		
Health Services Research	Applied	6	2%	8	1 %		
	Accepted	5	83%	6	75%		
	Enrolled	3	60%	2	33%		
Maternal and Child Health	Applied	38	10%	26	5%		
	Accepted	26	68%	16	62%		
	Enrolled	10	38%	7	44%		
Global Public Health plus Maternal and Child Health	Applied	n/a	n/a	28	5%		
	Accepted	n/a	n/a	17	61%		
	Enrolled	n/a	n/a	3	18%		
Leadership and Public Health Practice (Online Program)	Applied	n/a	n/a	9	2%		
	Accepted	n/a	n/a	6	67%		
	Enrolled	n/a	n/a	3	50%		
UNC Total		2013-2014		2014-2015		Fall 2015	
		n	%	n	%		
Community Health Education	Applied	31	100%	23	100%		
	Accepted	29	93%	19	83%		
	Enrolled	16	55%	9	47%		
CSU Total		2013-2014		2014-2015		Fall 2015	
		n	%	n	%	n	%
	Applied	246	100%	224	100%		
	Accepted	156	76%	142	63%		
	Enrolled	36	23%	50	35%		
Animals, People & Environment	Applied	16	7%	13	6%		
	Accepted	13	81%	10	77%		
	Enrolled	5	38%	6	60%		
Environmental & Occupational Health	Applied	11	4%	n/a	n/a		
	Accepted	8	72%	n/a	n/a		
	Enrolled	1	13%	n/a	n/a		
Epidemiology	Applied	42	17%	52	23%		
	Accepted	23	55%	34	65%		
	Enrolled	5	22%	14	41%		
Global Health & Health Disparities	Applied	82	33%	87	38%		
	Accepted	55	67%	49	57%		
	Enrolled	9	16%	15	31%		
Health Communication	Applied	10	4%	20	9%		
	Accepted	8	80%	17	85%		
	Enrolled	3	38%	5	29%		

CSU Total		2013-2014		2014-2015		Fall 2015	
		n	%	n	%	n	%
Physical Activity & Healthy Lifestyles	Applied	40	16%	20	9%		
	Accepted	34	85%	15	75%		
	Enrolled	10	29%	9	60%		
Public Health Nutrition	Applied	45	18%	32	14%		
	Accepted	15	33%	17	53%		
	Enrolled	3	20%	1	6 %		

Note: % Accepted = number accepted/number applied; % Enrolled = number enrolled/number accepted. For each concentration, % Applied = number applied to concentration/total applications to degree program. n/a=not applicable; program was not in place at this time.

Dual MPH Total		2013-2014		2014-2015		Fall 2015	
		n	%	n	%	n	%
	Applied	8	100%	23	100%		
	Accepted	8	100%	23	100%		
	Enrolled	8	100%	23	100%		
MD/MPH	Applied	3	38%	6	26%		
	Accepted	3	100%	6	100%		
	Enrolled	3	100%	6	100%		
DNP/MPH	Applied	n/a	n/a	7	30%		
	Accepted	n/a	n/a	7	100%		
	Enrolled	n/a	n/a	7	100%		
MPH/MPA	Applied	2	25%	7	30%		
	Accepted	2	100%	7	100%		
	Enrolled	2	100%	7	100%		
MPH/MURP	Applied	1	13%	6	26%		
	Accepted	1	100%	6	100%		
	Enrolled	1	100%	6	100%		
DVM/MPH	Applied	2	25%	4	17%		
	Accepted	2	100%	4	100%		
	Enrolled	2	100%	4	100%		

Note: % Accepted = number accepted/number applied; % Enrolled = number enrolled/number accepted. For each dual degree, % Applied = number applied to concentration/total applications to degree program. n/a=not applicable; program was not in place at this time.

For dual degree programs, students are generally accepted to the other specialty prior to being reviewed for acceptance to the MPH. Thus far, all such applicants have been accepted into the MPH program.

#### 4.3.D.2 SUMMARY OF DRPH DEGREE APPLICANT POOL AND OUTCOMES

The DrPH began in spring 2010 with two focus areas (Community and Behavioral Health and Epidemiology) and a third focus area in Environmental and Occupational Health was added in fall 2014. Applications have been consistent at around 24-28 for Community and Behavioral Health, and have seen an increase for Epidemiology from 12 in 2013-14 to 21 applicants in 2014-15. Acceptance rates for the DrPH are considerably lower than for the MPH (in the range of 11-25%) and enrollment rates are higher, with 50% or more accepting

the offer of admission. The intent is to keep these programs small and selective to facilitate strong faculty mentorship.

TABLE 4.3.D(2)(TEMPLATE 4.3.1) APPLICATIONS, ACCEPTANCES AND ENROLLMENTS FOR DRPH PROGRAMS FALL 2015 TO BE PRESENTED AT SITE VISIT

		2013-2014		2014-2015		Fall 2015	
		n	%	n	%	n	%
DrPH Programs Total	Applied	36	100%	59	100%		
	Accepted	8	18%	7	12%		
	Enrolled	5	60%	6	86%		
Community & Behavioral Health	Applied	24	67%	28	48%		
	Accepted	6	25%	3	11%		
	Enrolled	4	66%	2	67%		
Environmental & Occupational Health	Applied	n/a	n/a	10	17%		
	Accepted	n/a	n/a	2	20%		
	Enrolled	n/a	n/a	2	100%		
Epidemiology	Applied	12	33%	21	36%		
	Accepted	2	16%	3	14%		
	Enrolled	1	50%	2	67%		

Note: Accepted % = number accepted/number applied; % Enrolled = number enrolled/number accepted. For focus areas, % Applied = number applied to focus area/total applications to degree program.  
n/a=not applicable; program did not exist at that time.

#### 4.3.D.3 SUMMARY OF ACADEMIC DEGREE APPLICANT POOL AND OUTCOMES

The applicant pool has stayed relatively stable for MS programs over the past few years. These are small programs that generally have lower acceptance rates than the MPH and high enrollment rates among those accepted.

The PhD programs have relatively stable applicant pools, low acceptance rates, and high enrollment rates among those accepted. These are also small programs.



TABLE 4.3.D(3) (TEMPLATE 4.3.1) APPLICATIONS, ACCEPTANCES AND ENROLLMENTS FOR MS PROGRAMS FALL 2015 TO BE PRESENTED AT SITE VISIT

		2013-2014		2014-2015		Fall 2015	
		n	%	n	%	n	%
<b>MS Programs Total</b>	Applied	35	100%	44	100%		
	Accepted	12	34%	18	41%		
	Enrolled	12	100%	16	89%		
Biostatistics	Applied	23	65%	29	66%		
	Accepted	7	30%	11	38%		
	Enrolled	7	100%	10	91%		
Epidemiology	Applied	9	26%	6	14%		
	Accepted	5	56%	1	17%		
	Enrolled	5	100%	1	100%		
Health Services Research, Policy and Administration	Applied	3	9%	9	21%		
	Accepted	0	0%	6	67%		
	Enrolled	0	0%	5	83%		

Note: Accepted % = number accepted/number applied; % Enrolled = number enrolled/number accepted.

For specialty areas, % applied = number applied to area/total applications to degree program.

TABLE 4.3.D(4) (TEMPLATE 4.3.1) APPLICATIONS, ACCEPTANCES AND ENROLLMENTS FOR PHD PROGRAMS FALL 2015 TO BE PRESENTED AT SITE VISIT

		2013-2014		2014-2015		Fall 2015	
		n	%	n	%		
<b>PhD Programs Total</b>	Applied	43	100%	62	100%		
	Accepted	11	25%	17	27%		
	Enrolled	10	90%	15	88%		
Biostatistics	Applied	11	26%	14	23%		
	Accepted	2	18%	2	14%		
	Enrolled	2	100%	2	100%		
Epidemiology	Applied	17	40%	32	52%		
	Accepted	4	23%	8	25%		
	Enrolled	3	75%	7	87%		
Health Services Research	Applied	15	35%	16	26%		
	Accepted	5	33%	7	44%		
	Enrolled	5	100%	6	86%		

Note: Accepted % = number accepted/number applied; % Enrolled = number enrolled/number accepted.

For specialty areas, % applied = number applied to area/total applications to program.

**4.3.E QUANTITATIVE INFORMATION ON THE NUMBER OF STUDENTS ENROLLED IN EACH SPECIALTY AREA IDENTIFIED IN THE INSTRUCTIONAL MATRIX, INCLUDING HEADCOUNTS OF FULL- AND PART-TIME STUDENTS AND A FULL-TIME- EQUIVALENT CONVERSION, BY CONCENTRATION, FOR EACH DEGREE, FOR EACH OF THE LAST THREE YEARS**

TABLE 4.3.E (TEMPLATE 4.3.2) STUDENT FULL-TIME AND PART-TIME HEADCOUNTS AND FTE, 2013-14 THROUGH FALL 2015 *FALL 2015 TO BE PRESENTED AT SITE VISIT*

		2013-14			2014-15			Fall 2015		
Degree	Specialization	FT HC	PT HC	FTE	FT HC	PT HC	FTE	FT HC	PT HC	FTE
<b>MPH Programs at CU Anschutz</b>										
MPH	Applied Biostatistics	5	12	12.1	4	13	11.7			
	Community & Behavioral Health	21	51	17.6	22	57	52.7			
	Environment and Occupational Health	5	12	10.7	4	18	14.4			
	Epidemiology	22	49	49.8	31	47	56.3			
	Global PH & Community Behavioral Health	n/a	n/a	n/a	4	3	5.2			
	Global PH & Environ Occupational Health	n/a	n/a	n/a	3	1	3.4			
	Global PH & Epidemiology	n/a	n/a	n/a	7	3	8.7			
	Global PH & Health Systems, Management & Policy	n/a	n/a	n/a	3	4	5.4			
	Global PH & Maternal Child Health	n/a	n/a	n/a	2	1	2.6			
	Health Services Research	0	4	2.2	0	4	2.4			
MPH	Health Systems Management Policy	18	28	31.9	13	29	30.1			
	Leadership & Public Health Practice	n/a	n/a	n/a	0	8	3.8			
	Maternal and Child Health	2	9	8.4	4	12	10.1			
<b>MPH Programs at Colorado State University</b>										
MPH	Animals, People, and the Environment	8	2	8.9	9	5	11.7			
	Environment and Occupational Health	0	2	1.2	n/a	n/a	n/a			
	Epidemiology	5	8	9.3	12	8	16.4			
	Global Health & Health Disparities	14	12	20.3	22	6	25.3			
	Health Communication	3	3	4.5	6	0	6.0			
	Physical Activity & Healthy Lifestyles	10	2	10.7	11	6	15.7			
	Public Health Nutrition	2	2	2.9	0	4	2.1			
<b>MPH Programs at University of Northern Colorado</b>										
MPH	Community Health Education	8	26	23.3	7	23	18.4			

		2013-14			2014-15			Fall 2015		
Degree	Specialization	FT HC	PT HC	FTE	FT HC	PT HC	FTE	FT HC	PT HC	FTE
<b>Other Academic and Professional Programs</b>										
DrPH	Environmental and Occupational Health	n/a	n/a	n/a	1	1	1.9			
	Community and Behavioral Health	4	9	8.1	6	9	8.9			
	Epidemiology	1	3	3.3	1	4	3.1			
PhD	Biostatistics	4	5	6.9	1	8	5.8			
	Epidemiology	1	16	8.6	2	17	11.0			
	Health Services Research	5	13	9.8	3	15	11.0			
MS	Biostatistics	0	20	12.1	1	23	15.9			
	Epidemiology	5	3	6.2	4	4	6.9			
	Health Services Research, Policy and Administration	0	3	1.3	3	5	5.8			

\* Students enrolling in 9 or more credit hours per semester are considered full- time. Students enrolling in fewer than 9 credit hours are included as a pro-rated FTE with 9 credits considered full time. For example, a student enrolled in 6 credit hours would be considered 0.66 FTE.

n/a=not applicable. Program was not in place at this time.

#### 4.3.F IDENTIFICATION OF MEASURABLE OBJECTIVES BY WHICH THE SCHOOL MAY EVALUATE ITS SUCCESS IN ENROLLING A QUALIFIED STUDENT BODY, ALONG WITH DATA REGARDING THE PERFORMANCE OF THE SCHOOL AGAINST THOSE MEASURES FOR EACH OF THE LAST THREE YEARS

TABLE 4.3.F MEASURABLE OUTCOMES RELATED TO STUDENT ENROLLMENT

Objective	Measure	Target	2012-2013	2013-2014	2014-2015
1.1 Recruit and retain students of excellence	Average undergraduate GPAs of newly enrolled students, by degree	MPH – 3.30/4.00	3.36	3.35	3.31
		MS – 3.30/4.00	3.58	3.70	3.24
		DrPH – 3.30/4.00	3.24	3.64	3.39
		PhD – 3.30/4.00	3.46	3.64	3.41
	Mean verbal and quantitative GRE scores (percentiles) of newly enrolled students, by degree	MPH GRE-Q – 50%	52%	47%	48%
		MPH GRE-V – 50%	68%	59%	63%
		MS GRE-Q – 50%	64%	71%	68%
		MS GRE-V – 50%	67%	80%	71%
		DrPH GRE-Q – 50%	70%	63%	51%
		DrPH GRE-V – 50%	68%	64%	57%
		PhD GRE-Q – 50%	52%	44%	64%
		PhD GRE-V – 50%	50%	67%	63%
	Percent of incoming MPH students who have public health work experience	50%	63%	67%	63%
	Student enrollment in MPH programs, by concentration and focus area	Applied Biostatistics (CU)- 17	11	17	17
		Community and Behavioral Health (CU)- 77	75	63	71
		Global Health plus Community and Behavioral Health (CU)- 15	n/a	n/a	8
		Environmental and Occupational Health (CU)- 19	19	16	13
		Global Health plus Environmental and Occupational Health (CU)- 5	n/a	n/a	3
		Epidemiology (CU)- 54	54	68	71
		Global Health plus Epidemiology (CU)-10	n/a	n/a	9
		Health Systems and Management (CU)- 8	n/a	n/a	n/a
		Health Systems, Management, and Policy (CU)- 43	41	44	42
		Global Health plus Health Systems, Management, and Policy (CU)- 17	n/a	n/a	8
		Health Services Research (CU)- 8	n/a	4	3
		Leadership and Public Health Practice (CU)-12	n/a	n/a	4

Objective	Measure	Target	2012-2013	2013-2014	2014-2015
1.1 Recruit and retain students of excellence	Student enrollment in MPH programs, by concentration and focus area (cont'd)	Maternal and Child Health (CU)- 22	n/a	11	17
		Global Health plus Maternal and Child Health (CU)- 10	n/a	n/a	3
		Custom Concentration (CU)-No target	n/a	n/a	8
		Animals, People, and the Environment (CSU)- 20	12	9	13
		Environmental and Occupational Health (CSU) - discontinued	2	2	0
		Epidemiology (CSU)- 27	9	12	19
		Global Health and Health Disparities (CSU)- 30	17	22	27
		Health Communication (CSU)- 16	4	6	7
		Physical Activity and Healthy Lifestyles (CSU)- 24	2	12	16
		Public Health Nutrition (CSU)- 10	5	5	4
		Community Health Education (UNC)- 42	26	34	30
	Number of students with Global Public Health plus add-on	57	n/a	n/a	31
	Student enrollment in DrPH programs	Community and Behavioral Health- 13	10	12	13
		Environmental and Occupational Health- 4	n/a	n/a	2
		Epidemiology- 8	4	5	5
	Student enrollment in MS/PhD programs	MS, Biostatistics- 25	24	20	24
		PhD, Biostatistics-27	11	9	8
		MS, Epidemiology- 7	8	7	8
		PhD, Epidemiology- 22	15	15	19
		MS, Health Services Research- 5	n/a	0	5
		PhD, Health Services Research- 16	13	17	16
	Student enrollment in joint degree programs, by program	Medical Doctor/MPH – 5	7	3	6
		Doctor of Veterinary Medicine/MPH – 5	5	4	4
		Master of Urban and Regional Planning/MPH - 2	2	2	6
		Master of Public Administration/MPH - 2	3	6	11
		Doctor of Nursing Practice/MPH - 6	n/a	n/a	7
	Student enrollment in certificate programs	Certificate in Public Health Science-UCD	65	74	77
		Certificate in Public Health Science-UNC	9	7	6
		Global Public Health	12	14	9

Note: n/a indicates not applicable

#### **4.3.G ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met.

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#### **STRENGTHS**

We have an established process for admissions that is working well. We have recently implemented new strategies for recruitment and have plans for enhancing these. In the application cycle for 2015, we consolidated our admissions process so that all our degree and certificate applications are collected through SOPHAS. This has increased our brand exposure and simplified our application processing. Application numbers have grown over time and this is allowing us to be somewhat more selective among applicants. This is particularly true for the academic degree programs (MS and PhD), which have a longer history than the MPH. We are largely meeting our targets regarding qualifications of students admitted.

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#### **WEAKNESSES**

We have not yet achieved our targets for recruitment in all programs. Recruitment is, however, growing steadily over time and we anticipate that the targets will eventually be met. Our faculty would like to recruit higher quality students and have the luxury of being more selective in admissions. Through scholarship programs (which are limited), particularly through targeted tuition scholarships to lower out-of-state tuition, we are striving to attract a stronger applicant pool. Enhanced recruitment is particularly necessary for our MPH in Community Health Education at UNC and our MPH in Environmental and Occupational Health at CU Anschutz. Our Leadership and Public Health Practice MPH program, which is almost completely online, has attracted fewer students than we anticipated, and recruitment efforts have been stepped up. Turn-over in our Student Affairs staff over the past two years has created challenges in managing the high volume of applications that must be processed in this collaborative school.

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#### **PLANS**

Enhanced efforts for recruitment overall, and especially for those programs with enrollment lower than desired, are being implemented as described in section 4.3.a. Efforts are being made to address the working environment for staff to reduce turnover.

## 4.4 ADVISING AND CAREER COUNSELING

### 4.4.A DESCRIPTION OF THE SCHOOL'S ADVISING SERVICES FOR STUDENTS

The Academic Advising Program is designed to provide each student with the support and services needed to successfully meet academic requirements and to help students make elective choices that will best serve them in their post-graduate employment pursuits. There are four components of advising in all of our programs that are implemented slightly differently across program concentrations and degrees. These are:

- Orientation activities and materials
- Faculty advisors and program advisors
- Practicum and capstone advising (MPH and DrPH) and Thesis and Dissertation advising (MS and PhD)
- Department and program staff audits

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#### ORIENTATION

In-person orientation sessions are required for students in all programs, and occur at the beginning of the fall semester. These sessions orient students to university level policies and services (e.g., health insurance requirements; disability and writing center service; ID badges; parking), ColoradoSPH policies and services (e.g., immunization requirements; career services; student deadlines), and program specific information (e.g., course requirements, culminating experience). Students meet with program/concentration directors and faculty advisors to review program specific requirements and course sequencing, and to meet other students in their programs. Usually, a co-curricular activity is included (e.g., in fall 2014 and 2015, a cultural humility experience was offered), as well as a social time (e.g., barbeque). The orientation at the CU Anschutz campus is offered for all students regardless of their primary campus location. Orientations are also held at CSU and UNC for students on those campuses. The agenda for the fall 2014 orientation is provided in Resource File 4.4.a(1).

All programs have a student handbook that describes policies and requirements for both the School and program. It also includes information about campus-wide policies covered at orientation. Handbooks are available at:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Pages/PoliciesHandbooks.aspx>

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#### FACULTY ADVISOR AND PROGRAM ADVISOR

Each new student is assigned an advisor within their department or program. In some departments, this may be the concentration or program director, in others, advising is distributed among all teaching faculty in that concentration or program, with each student assigned to a specific faculty member. For MS and PhD students, the program director serves as advisor to each student upon entry into the program. This is not a permanent assignment. It is expected that students and faculty will meet at least once at the beginning of the first official term of study with the goal of reviewing the student handbook and mapping out a possible course of study.

Departments/programs have flexibility in how to implement this advising component. For example, CBH and HSMP have a concentration specific advising guide that outlines the core and concentration requirements, where the student and advisor can record plans for when courses will be taken (see Resource File 4.4.a(2)). Students are encouraged to check-in with their advisor at least once per semester and to keep their advisors and the program director informed of study plans. Students may request to change advisors if they find another faculty member with whom they feel their interests are in better alignment. For MS, PhD, and DrPH students, the faculty advisor will typically change upon identification of a thesis/dissertation topic, if the topic is not aligned with the expertise of the originally assigned advisor. For doctoral programs, the student's interests are typically taken into account when the initial faculty advisor is assigned. For example, for the community and behavioral health focus area of the DrPH, applicants are encouraged to establish a relationship with a faculty member who has common interests before applying to the program, and to discuss that relationship and common interest in application materials. The faculty member identified would then typically be assigned that student for advising upon matriculation.

Each department conducts its own advisor training, which varies by department and program. Because of the variability in training, some advisors are more informed and proactive than others. Tenure-track faculty are allocated 9% FTE and clinical teaching faculty are allocated 5-9% FTE for "service" activities, which includes student advising. Previously, faculty were allocated additional FTE for mentoring theses and dissertations, but this practice was suspended due to budgetary constraints.

In addition to individually assigned faculty advisors, students have access to program/concentration directors, who are also faculty members and generally have more comprehensive knowledge than their faculty advisor may have. All students in the school may also get general information (not course or content specific) advice from the Academic Affairs Coordinator (B. Witt). The Academic Affairs Coordinator can provide advice on administrative procedures such as course enrollment, applications to graduate, scheduling of qualifying and comprehensive exams, etc.

Dual degree students are assigned advisors in both degree programs.

Overall, this advising system works well. However, some faculty advisors are more informed and engaged than others, and there are occasions in which advisors are not utilized by their advisees.

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## **PRACTICUM AND CAPSTONE ADVISING (MPH AND DRPH)/ THESIS AND DISSERTATION ADVISING (MS AND PHD)**

For the MPH, the practice-based learning experience at ColoradoSPH includes the practicum course (2 credit, 120 hour minimum field experience) and the capstone course (development of a project that demonstrates concentration competencies). The practicum is typically completed in the summer after the first year of study, or during the second year of study, and the capstone is typically completed in the student's final semester. Students have various opportunities to learn about the practice-based experience in their first year. There is a presentation at student orientation and during each semester, at which students meet with the faculty director of practice-based learning for information about the process and procedures to set up their practicum. Additionally, students meet with the capstone faculty to discuss the procedures for project development and the course expectations. Additionally, students can set up one-on-one meetings with the faculty director of practice-based learning, their concentration director, their faculty advisor, and/or the



capstone faculty for individual guidance. The faculty director of practice-based learning oversees each student's plans, agreements, and execution of the practicum across all campuses. Students prepare detailed proposals for their practicum experiences that identify a preceptor, competencies to be addressed, learning objectives and activities. The preceptor and the student's concentration director must sign off on the proposal for the practicum experience. See practicum materials in Resource File 2.4.a(1) and 2.4.a(2). Some programs have held student meetings to advise students and discuss program-specific expectations for the capstone.

For the capstone project, students follow an approach that is similar to the practicum, including developing a brief proposal with competencies to be addressed and a timeline for completion. A preceptor (if relevant) and the faculty advisor review and sign off on the proposal. Additionally, MPH capstone students attend a class directed by faculty members representing each core area who are available to provide guidance to the students as they complete their projects. It is the intent that the primary mentorship for the project will reside with the preceptor and/or faculty advisor, who have direct experience in the area in which the student is working. In the case of students who elect to also complete a publishable paper in conjunction with their capstone, a faculty member must agree to work closely with the student to oversee the development of a manuscript of submission quality. These faculty advisors may or may not be the same as the initial faculty advisor assigned to the student.

The practicum experience for the DrPH follows a similar approach to the MPH practicum, with identification of a community preceptor who will guide the student. In any particular year there may be only 2-5 DrPH students completing their practicum experiences, therefore there are not structured sessions to describe the process.

For programs that require a thesis or dissertation, we follow a standard committee-based advising system at the point in the program that the student reaches this stage. Students convene a committee with membership based on the requirements of the CU Denver/Anschutz Graduate School and their program (e.g., three person committee for master's thesis and generally a five person committee for the doctoral dissertation, including members in the home department and outside of the home department). The student's mentor is typically the primary advisor of the student from this point in their academic career forward, while the committee chair and other committee members also provide guidance both overall and in their specific areas of expertise. The committee may recommend or require coursework of the student to support the student's specific research area.

Procedures for the culminating experiences are in the respective student handbooks, which all students are given at orientation and are available on the website:

<http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Pages/PoliciesHandbooks.aspx>

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## DEPARTMENT AND PROGRAM STAFF AUDITS

Audits of students' progress through their programs are conducted at varying times depending on the program. For academic programs (MS and PhD), annual audits are conducted to determine where students are in their program (e.g., completed coursework, passed qualifying or comprehensive exams, formed a thesis/dissertation committee, advanced to candidacy). For all programs, students are required to submit an application to graduate at the beginning of the semester in which they plan to graduate. Audits are then

completed to assure that all required coursework is complete or in progress. For these audits, the student is first assessed at the departmental level and then at the School level. The departmental audit (usually by the concentration director or faculty advisor) is completed prior to the add/drop deadline for the semester so that the student may adjust his/her schedule if a problem is identified. At the School level, each semester a report is run to identify any students who are close to the maximum time for completion of their program. Programs and students are notified in these cases. Each semester, a report is run to identify any students whose GPAs have fallen below the required 3.0 level. These students are placed on academic probation. They, their program directors, and their advisors are notified and the student is required to meet with their advisor to create a remediation plan. See template letter in Resource File 4.4.a(3). Students with a single semester GPA below 3.0, and their advisors, are also notified as a precautionary practice, although the student is not placed on probation until their overall GPA falls below 3.0.

#### **4.4.B DESCRIPTION OF THE SCHOOL'S CAREER COUNSELING SERVICES FOR STUDENTS IN ALL DEGREE PROGRAMS. INCLUDE AN EXPLANATION OF EFFORTS TO TAILOR SERVICES TO SPECIFIC NEEDS IN THE SCHOOL'S STUDENT POPULATION**

Based on feedback from students that the School lacked adequate career services, ColoradoSPH created and filled a new full-time staff position, Manager of Career and Employer Relations, in fall 2012. The activities of this position were revamped in June 2014 with the subsequent hire of Ben Weihrauch, who joined us with 14+ years of higher education experience, including career services, admissions, advising, and student life, and with further experience in the private sector. Ben also holds a master's degree in student affairs administration and is highly credentialed in career advising (Global Career Development Facilitator, Myers-Briggs Type Indicator, Strong Interest Inventory, StrengthsFinder, etc.).

The activities of the career services manager are organized around the mission "to serve the career development needs of ColoradoSPH students and alumni by providing career skills and training to be successful in an ever-changing job market." The implementation of this mission focuses on the following articulated career competencies, which are based on best-practices in career skills:

- Articulate and apply academic course content in a professional setting
- Gain relevant experience that enhances the student's professional goals
- Understand, develop, and articulate a "personal brand"
- Develop a current set of "professional documents"
- Engage in professional development through networking, professional organizations, and leadership
- Successfully plan and execute a job search strategy that leads to employment

Career advising is provided in-person, by phone, by email, and through online sessions. Appointments are typically one hour in length. This provides the opportunity to customize career services for each student or alumnus. In developing the career competencies described above, appointments give attention to: resume/CV; cover letters; personal branding; professional networking; interviewing; use of LinkedIn; professional references; and salary/compensation negotiation.

Career services activities also include webinars, alumni career panels, employer information sessions, and networking events. In the past year, the following events were held:

- 10/6/14 - USAID Info Session CSU (Attendance: 21)
- 10/7/14 - USAID Info Session Anschutz (Attendance: 22)
- 10/9/14 - Centura Health Employer Presentation (Attendance: 11)
- 10/14/14 - Personal Branding UNC (Attendance: 6)
- 10/16/14 - Personal Branding CSU (Attendance: 16)
- 11/4/14 - LinkedIn CSU (Attendance: 15)
- 11/11/14 - LinkedIn UNC Students (Attendance: 5)
- 11/12/14 - Career/ Alumni Panel for CBH (Attendance: 15)
- 1/20/15 - LinkedIn Preventive Medicine Residents (Attendance: 6)
- 2/6/15 - Strengths Finder for Emerging Leaders Conference (Attendance: 34)

Some programs and departments have also sponsored events to guide students in their job searches. For example, in fall 2014, the Community and Behavioral Health department held a brown bag session at which alumni participated in a panel discussion and provided employment advice to community and behavioral health and maternal and child health students.

In addition to the services described above, in November 2014, the School launched ColoradoSPH Connect, which is a collaboratively-funded initiative between ColoradoSPH, the Center for Public Health Practice, and Kaiser Permanente. This system includes:

- Centralized online portal for full-time and part-time jobs, practicum, internship, and volunteer opportunities
- Resource library with tip sheets, informational links, videos, etc.
- RSVP for events, speakers, and networking sessions
- Access to the School's employer contact database

A report detailing career services activities for 2014-15 is available in Resource File 4.4.b.

#### **4.4.C INFORMATION ABOUT STUDENT SATISFACTION WITH ADVISING AND CAREER COUNSELING SERVICES**

Questions used to assess student satisfaction with advising and career services are available in the exit survey (see Resource File 2.7.a(1)). We have met our targets regarding student satisfaction with advising. Data from the alumni survey are also available to speak to the quality of advising. Responses to the 2014 alumni survey include graduates from 2012-13 when they were approximately 1-2 years post-graduation. On a 7-point scale, graduates rated advising from their academic advisor at 5.2; advising from program faculty at 5.7; and career services and job search preparation at 3.9. These students graduated prior to the development of our career services portfolio within the Office of Student Affairs. Based on data reported above from the exit survey, career services ratings may be rising. Students graduating in the years reported in Table 4.4.c below would have had some access to these services. We have not yet met our satisfaction target, but anecdotally, current

and recently graduated students seem to be more satisfied as we continue to enhance these career counseling services.

TABLE 4.4.C ALUMNI RATINGS OF ADVISING AND CAREER COUNSELING SERVICES

Objective	Measure	Target	2012-2013	2013-2014	2014-2015
1.3 Provide high quality educational programs in public health	Satisfaction with advising/ mentoring - Masters	5.0/7.0	5.3	5.1	5.4
	Satisfaction with advising/ mentoring - Doctoral	5.0/7.0	6.7	6.1	6.0
1.7 Enhance career development and employer relations programs	Student evaluations of career placement and counseling	5.0/7.0	4.4	4.6	4.9

#### 4.4.D DESCRIPTION OF THE PROCEDURES BY WHICH STUDENTS MAY COMMUNICATE THEIR CONCERNS TO SCHOOL OFFICIALS

Students can communicate concerns to the School by discussing them informally with their academic advisor, course instructor, concentration director/program director, department chair, the associate dean for academic affairs, the associate dean for student affairs, or the dean. The School continuously monitors student feedback and responds to issues and requests as appropriate and feasible. All of the administrators encourage formal as well as informal feedback from students and we feel students know we are sensitive to their views and concerns. For example, international students expressed a desire for a structure to communicate with administration regarding their needs, and an annual luncheon was initiated in 2013 to address this, as well as an ongoing international student group. It is relatively common for a student to express disagreement about a course grade. Our grievance policy states that a grievance should be addressed at the most “local” level possible. Thus, students first bring a disagreement about a course grade to the attention of the instructor. If the disagreement remains unresolved at that level, it would next be taken to the department chair. These have historically been successfully addressed at the instructor or department chair levels.

For example, in 2013 a student contested her failing grade in the MPH capstone course to her instructor. When the student was not able to reconcile this with the instructor, the department chair met with the student to understand the concerns. The student believed that she had not been adequately advised about the expectations for the capstone project, and had not been adequately advised for her project. While the instructor had a different viewpoint, the incident was resolved to the satisfaction of both the instructor and student by the student being allowed to complete a new, separate project with more intensive advising. The student successfully completed the capstone under this remediation plan.

The grievance policy is available on the ColoradoSPH website and laid out in the student handbook provided to all students. It can be found in Resource File 4.4.d(1), and at the following link.

<http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Documents/PoliciesHandbooks/GrievancePolicies.pdf>

Students at CSU and UNC follow home campus grievance procedures for course-related issues, and ColoradoSPH procedures for school related issues.

UNC Student Grievance Procedures: <http://www.unco.edu/dss/grievanceProcedures.html>

CSU Student Grievance Procedures: <http://conflictresolution.colostate.edu/conflict-resolution>

While the School's grievance policy lays out a formal procedure if a grievance has not been addressed through informal approaches, these formal procedures have not been used in the history of the School (i.e., since they were put in place in 2010).

The ColoradoSPH Honor and Conduct Code can be found in Resource File 4.4.d(2) and at the following link.

[http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Documents/PoliciesHandbooks/CSPH\\_Honor\\_Code.pdf](http://www.ucdenver.edu/academics/colleges/PublicHealth/Academics/academics/Documents/PoliciesHandbooks/CSPH_Honor_Code.pdf)

#### **4.4.E ASSESSMENT OF THE EXTENT TO WHICH THIS CRITERION IS MET**

This criterion is met with commentary.

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#### **STRENGTHS**

Students enrolled in ColoradoSPH have access, from the time of enrollment, to faculty advisors who are knowledgeable about the School's curricula overall and about specific courses and programs of study. In-person orientations are required for all students. All students receive a published student handbook that outlines school and program policies and requirements. Attention is focused on the handbook at new student orientation, and the handbook is also readily available on the ColoradoSPH website. In recent years, the School significantly enhanced career services to students across all programs and to alumni. Grievance policies are in place, but to date student grievances have been handled informally and no formal grievances have been filed. Evaluation measures related to these aspects of the School are favorable.

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#### **WEAKNESSES**

While we have met our target for student satisfaction with advising, we recognize that we have room for improvement. For example, there have been occasions where individual advisors or staff in the Offices of Academic Affairs or Student Affairs have misinformed students about program requirements, or failed to advise students regarding paperwork that needed to be completed. Not all advising is of equal quality across the School, and varies by individual faculty member, program, and administrative office. Because academic programs are administered through the Graduate School, coordination is sometimes awkward and students are sometimes confused about which rules to follow and where to go for help navigating the system. As described previously, in FY12-13, due to financial shortfalls, three staff positions were eliminated by the School, and salary support for faculty teaching and service effort was reduced.

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## PLANS

We plan to engage students, faculty, program/concentration directors, and staff in a conversation about the best approaches to improve student advising. This may include clarifying with students what they should expect from advising, standardizing advising across departments and within programs through centralized advisor training and materials, and/or reassigning some advising responsibilities to administrative staff. This conversation will take place during the 2015-16 academic year. We have recently developed flow diagrams for academic (MS and PhD) and DrPH students showing the sequence of requirements, including forms to be completed and committee meetings to be held, for completion of their degrees. Use of these diagrams will begin in 2015-16 and the diagrams are available in Resource File 4.4.e. We are working toward restoration of the FY13 reductions in support for faculty advising effort and expect to have at least partial restoration by fiscal year 2016-17.



